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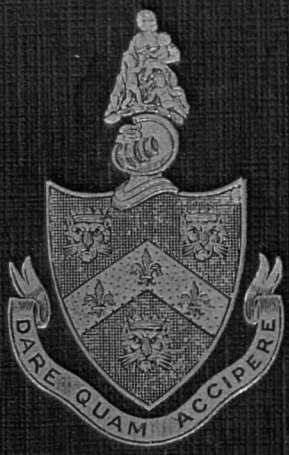

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GUY'S HOSPITAL GAZETTE

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PASSIM

CHRISTMAS, which, like one touch of Nature, makes savages of us all, is past us now; and, even as the influenza, has left its depression behind. The last ward concert is over, the last of the turkey, be it grilled, devilled or compressed into a cutlet, has been finally disposed of, the last carousal attended; it remains only to take down the decorations before twelfth night, and to think what we are going to put in those diaries for the first fortnight of the new year. But while it lasted it was a remarkable occasion.

"Christmas," the most illustrious of all old Guy's men is represented as saying, "the very word is like a knell!" For the most part we cannot help being in agreement with him, and at first sight, if one believes the parodist, one might be tempted to regard this passage as internal evidence that Keats was a resident while at Guy's. For to be tied to one's post through a national festival and holiday is hard enough, in all conscience—but on further consideration one becomes less sure. For there is an atmosphere in the wards of such remarkable good cheer, a willingness and a joy and acceptance of life that cannot fail to impress even the most jaundiced resident. One comes to feel that, in such an unqualified assertion, our greatest genius is being made to show that he was accustomed to take a few days off at Christmas.

The wards, as usual, were transformed by much careful decorative work and many willing hands, until they were hardly recognisable as such. The heroic band of "Niggers," that strange legacy from the great Victorian age, were in fine voice on Christmas Day, while concerts, recitations, monologues, music and plays abounded through the kindness and generosity of both amateur and professional artistes, in the latter half of the week. An account of the "Niggers" we append elsewhere; of the ward concerts we hope to write in a later number. In this, our first number of the New Year, we would offer our best wishes for 1936, and, gentlemen, let us have lots of quarrels, for they fill up the correspondence column.

THE Rugby Football Club is holding a Dinner at Grosvenor House, W.1, on Wednesday, January 29th, at 7 for 7.30, to celebrate the opening of the new ground, grandstand and extensions to the pavilion, at Honor Oak Park. It will be remembered that both functions were to have taken place in November, when the destruction of the grandstand by fire necessitated their postponement. Tickets, which are 12*s.* 6*d.*, may only be obtained by filling in special application forms which may be obtained from Messrs. N. L. Eckhoff, A. R. Clarke, C. S. Darke, C. G. Wright and R. C. S. Dick, and from the Medical School Office, the Front Lodge and the College Lodge.

Mr. E. C. Hughes will preside, and there will be present the Cambridge University XV, representatives of the Rugby Union, Oxford University, the Counties, the London Clubs and the Press.

Every effort is being made by the Clubs' Union and Rugger Club officials to make the function a success, and early application is advised for the tickets, which are open to all Guy's men, past and present.

On the afternoon of the 29th the new ground, the extensions to the pavilion, and the new grandstand, will be officially opened at Honor Oak Park by Mr. H. L. Eason, C.B., C.M.G., Vice-Chancellor of the University of London and Superintendent of the Hospital. The ceremony will take place at 2 p.m., and will be followed by a fixture between the Hospital and Cambridge University.

The additions to the ground and pavilion will make the Hospital Sports Ground at Honor Oak Park equal to any in London, and every credit is due to the Clubs' Union Council, who have worked so hard and efficiently to provide them.

It is very fitting that a match against so good a team as Cambridge terminates a month of strenu-

ous fixtures, which include Birkenhead Park and Bedford at home on the 11th and 18th, and Gloucester away on the 25th. The team appears to be finding its feet now, and these games should result in its being in as good form as possible for the forthcoming Cup matches.

This year is the first occasion on which the draw has been seeded, and the seeded teams are St. Mary's, Bart.'s, King's, and ourselves. We receive a bye in the first round, and on February 20th at Richmond meet the winners of St. George's and Westminster.

WE congratulate W. H. Bradbeer on passing the M.S. (Lond.) and D. M. Paterson on being awarded First Class Honours in Orthodontics in the Final of the B.D.S.

OUR little world has been disturbed by a strange event. We do not offer a prize for the best solution, but solutions will be welcomed. It was observed on Christmas Day that here, in the College, we had a stranger in our midst, and strangers to the College at Guy's are conspicuous at Christmas, when only the old *habitués* hang on. It was not merely that he was foreign to us, for he was strange in more ways than that. He first attracted attention by entering, we might have said bursting, into conversation with any and sundry; his conversation for the most part took the form of questions, and the questions were mostly asked with a view to finding the whereabouts of certain people. Of some of these people we had heard, but not being their keepers knew not where they were; of others we had never heard at all. Those of us who continued the conversation beyond the first question mark found that our new colleague had been an extern at the Hospital in 1933. Others found that he had qualified in Canada, and had returned from Magill University not a fortnight since. Others that he had qualified in London; others that he had qualified at Oxford. All who carried the conversation to any length found that the newcomer was destined for the position of House Physician to Dr. Poulton for the months from February to August; this came as somewhat of a surprise to other competitors for the post who were hoping to apply. A few of us learned that he was a member of the Richmond Rugby Football Club, and indeed we knew that, for did he not wear the tie? One or two of us were told that he had been in the Hospital team, while doing extern in 1933. It was remarkable, and gave the man an added interest, that none of us who had been externs in 1933 or in the rugby football side at that time had any recollection of him whatever. However, in his capacity as house physician-elect he patrolled the wards with a superintendent air, and on one occasion, in a medical ward at ten at night, warned a patient that he must not read, for that was against the rules. Not much in that, you may say, but that patient happened to be a house surgeon warded for, we hope, a temporary indisposition.

Soon an interesting side-line developed; our house physician was selling skates. They were bargains, much reduced in price. Would we care to come up to his room to try them on? His room was rather high up; he was using one lent to him by a friend who was away over the Christmas season, but when he was a house physician he would have one on a lower floor. Which was his friend, what did he look like? Well, he didn't precisely know.

So we had arrived at the complicated position that we had among us a former fellow student, an extern, though none knew him, a member of the Rugger XV, though none remembered him, who had qualified in Canada, in London, and at Oxford; that he had undergone a clinical training at Guy's, that he had undergone a clinical training at Magill, that he had passed some of his pre-qualification days at Guy's, and all of them at Magill, and sometimes that he had passed some of them at each. The Richmond Rugby Football Club had received his application for membership, and understood that he came from Bart.'s. The Medical School Office had never heard of him at all.

A *dénouement* came when, in conversation, he asked his companion if he knew a certain Mr. ——. He, our new house physician, knew Mr. —— quite well. He told us where Mr. —— came from, and where they had met on mutual ground. He was right in his facts, but Mr. —— was standing next him throughout the conversation! Finally he was confronted by the powers, and, as was expected, the tenor of his remarks became a little changed. He was seeking admission as a student. He hoped, he said, that his application would be favourably considered. After which, taking with him his skates and having paid his bill from a wallet stuffed with notes, he went out into the night.

It seems a strange thing that a total stranger can enter the College, sleep in another tenant's bedroom, use his name as an introduction, and pass unchallenged by the authorities for several days. It would seem that it was only the undue interest aroused in him by those he met, his unexpected appearance at an unpopular time of year, and his somewhat paranoid intentions to the post of house physician that prevented him from staying on indefinitely. But that is not the interesting thing. Readers, why did he come?

Was he a novelist, seeking copy; an enterprising commercial traveller (he sold no wares in the end); a madman, or did he do it for a bet?

Associated Ocular and Oral Disease

A Paper read before the Society of Ophthalmic Opticians, Devon Branch, and British Dental Association, Devon Branch, by Frank S. Krusin, Esq., B.D.S.Lond., M.R.C.S., L.R.C.P.

MR. CHAIRMAN and GENTLEMEN,—The first reference to the association of ocular and dental disease is a very ancient one and was made by Hamu Rabi, somewhere about 2000 B.C., in his famous " Table of Disease." No further mention is made of their connection until the latter part of the 18th century. No real progress can be recorded until the advent of the X-ray as a means of diagnosis, without which at the present time no dental examination is complete.

I intend in this paper to divide these associated diseases into those of a toxic and those of a non-toxic origin, rather than by specific ocular or oral conditions, and to deal with the non-toxic ones first.

By *non-toxic disease* I mean those conditions affecting eye and mouth which have neither a bacterial infection nor a drug as their cause. First let us consider the condition known as jaw-winking. This phenomenon is characterised by the patient blinking every time the mouth is opened. I have seen one case of this, which was unilateral. This I believe to be usual, as I have found no recorded case of bilateral jaw-winking. It must not be confused with a tic ; that is a nervous habit which may simulate it absolutely, but for which the psychologist can usually find a cure. True jaw-winking is caused by an abnormal anatomical linking of the masticatory branches of the mandibular division of the trigeminal nerve with those branches of the oculo-motor which supply the muscles of the upper eyelid, causing both sets to move in unison. There is no treatment for this condition.

The congenital condition of lamellar cataract, which is a familial one, is usually observed in a child at about the third year, and is commonly associated with a hypoplastic ridging of the permanent incisor teeth.

No other abnormalities are present, treatment of both conditions being symptomatic.

There are two structural curiosities to be considered : *Crouzon's syndrome* is an association of oxycephaly with a sunken-in maxilla and floor of the orbit and a characteristic nose, known as parrot's beak, resulting in exophthalmos, a divergent strabismus, and optic atrophy, with a relative prognathos. The dental characteristic is a widely opened bite. There is no ophthalmic treatment, but a definite amelioration of the dental condition can be obtained by orthodontic means. *Apert's syndrome* is a variation of Crouzon's, with the addition of syndactile.

Metabolic disturbances are responsible for abnormalities of eye and mouth, notably in rickets. Ulceration of the cornea in the rickety child is of frequent occurrence, and the permanent dentition is hypoplastic and, in contradistinction to the previous syndrome, the teeth are poorly developed. Particularly noticeable is the notching of the incisors, these notches forming small segments of large circles, the reverse of which is found in Hutchinson's teeth—to be mentioned later.

The third and most important class of case in the non-toxic group is that in which an ophthalmia is produced as the result of a non-infective chronic irritation in the mouth. Bowdler Henry, the Hunterian Professor this year, has made an exhaustive study of this subject, the results of which he gave in his Hunterian lecture before the Royal College of Surgeons of England. Henry's work was in connection with the unerupted wisdom teeth, both upper and lower, and out of seven hundred cases he found fifty associated with ocular symptoms, principally uveitis. Of these fifty, just over half after extraction were found to be septic, but the remainder of them proved sterile under the most careful culture conditions. Yet in both types of case the ophthalmia was equally cured. His conclusion is, therefore, that a healthy, misplaced wisdom tooth —whether upper or lower—can give rise to a uveitis, and that no search for any phenomenon of dental sepsis can be reckoned complete without the removal of any unerupted or misplaced wisdom tooth. As to the underlying reasons for this, one may consider it an allergic phenomenon, or the result of reflex irritation through the fifth nerve, or a reflex of the same type as sympathetic ophthalmia, the reasons for which are still unknown.

Before passing on to the toxic associated diseases of the eye and the mouth, I would refer briefly to one grave and common ocular disease, which is as frequently due to infection as to other causes, namely *glaucoma*. Primary and secondary types occur, and the former may be either congenital or acquired. Congenital glaucoma—known as buphthalmos—does not concern us here. *Primary* acquired glaucoma is equally frequently caused by (1) a focal sepsis, (2) a gradual growth in size of the lenses with advancing years, causing the iris to be pushed forward and to

obstruct the angle of the anterior chamber. There are, of course, other less common causes. *Secondary* acquired glaucoma may be due either to trauma or be a sequela to an ocular inflammation, especially of uveitis. I wish to stress an early symptom of all forms of acquired glaucoma which the dental surgeon must keep in mind. The patient may come to him complaining of pain in the side of the face and the upper teeth. Careful examination may reveal no dental disease and the patient be dismissed with a diagnosis of neuralgia or a migrainous-like attack. Vomiting in 24 or 48 hours after the onset of the pain must be viewed with the greatest suspicion and the patient sent for ocular examination without delay, although it may be impossible to elicit from him any symptoms of pain in the eye.

TOXIC DISEASES

Bacterial infections we can divide into general ones giving rise to associated symptoms, and focal sepsis. In very few cases of infection, whether general or focal, has the causative organism been found in the eye, and the path of the infecting organisms clearly established. The theories of allergy have been invoked to explain the clinical findings. Hunter Scarlett has recorded several cases of angioneurotic œdema—a disease which may be characterised by a recurrent œdema of the lids and conjunctiva, formerly said to be due to vasomotor disturbance, but now attributed to allergic phenomena. Exclusion dieting has produced improvement in certain of these cases after protein sensitisation tests have been carried out. Associated with angioneurotic œdema there have been found in the United States what are known as canker sores : I can find no reference to them in European literature. They consist of small, round, pale grey, boggy-looking ulcers found in the sulci of the mouth, and apparently are also relieved by exclusion dieting, etc. Canker sores are also found associated with the other allergic diseases, *e.g.*, asthma, etc., and sometimes without other manifestations of allergy.

Hunter Scarlett believes that nearly all cases of ocular infection following a dental one are of an allergic nature, and not due to a direct bacterial invasion of the affected parts of the eye. He quotes two cases where a septic tooth was removed in ocular infection, and in each case a streptococcus hæmolyticus was grown from the apex of the tooth. In both instances a cure of the ocular condition was obtained, but he could find no trace of the streptococcus in the eye. His conclusion is that the eye was sensitised and then inflamed by bacterial allergy. This opinion, in fact, is becoming more and more generally accepted as the connecting link between dental and ocular infections, as, if bacteria were to circulate in the blood stream and thus reach the eye, a general septicæmia would be present at the same time. It is important to bear these facts in mind in the subsequent part of this paper dealing with focal infection. It is often suggested that the lachrymal duct is the connecting link between the two, but as inflammation of the duct is not often present this theory of mode of approach does not seem to afford a true explanation. Not many general infections produce both eye and mouth symptoms. One, however, which does is *syphilis*, and concomitant lesions can be found in nearly every stage of this disease. *Primary* syphilis may occur as a chancre in either the eye or the mouth, but without reaction in the other.

The rash of *secondary* syphilis is quite commonly found in the mouth, especially on the inside of the cheeks, with or without a snail-track ulcer on the tonsil or soft palate ; and associated with this may be found an iritis. This iritis has often been described as being found in the tertiary, or gummatous, stage, as well as in the secondary, but, according to Sym, this is erroneous.

In the tertiary stage, perforating gummata of the palate are fairly commonly found, and, although somewhat rare, an interstitial keratitis (so-called) may be associated. Sym states, and his statement is corroborated by many authors, that the interstitial keratitis of syphilis—both tertiary and congenital—is, in fact, a cyclitis with subsequent involvement of the cornea, and, therefore, should not be termed a keratitis. Other symptoms of the tertiary stage are found in the nervous system and do not enter the sphere of this paper. In *congenital* syphilis there are a few reported cases of iritis in infants, but the common eye symptoms of this manifestation of syphilis are soft cataracts and, above all, interstitial keratitis (subject to the erroneous terminology already referred to). The conditions appear from the eighth year of life onwards, and are associated with the characteristic formation of the permanent dentition known as Hutchinson's teeth (notched—large segments of a small circle—incisors, and conical canines and first molars).

Focal infection of the teeth may produce any or all types of ophthalmia. Villard holds—and it is generally corroborated—that when dental disease produces an ophthalmia the latter most commonly manifests itself as uveitis, *i.e.*, iritis, iridocyclitis or chorioiditis, or any combination of these. He also states that the teeth which, when diseased, most commonly affect the eye are, in order of frequency : the first, the second pre-molar ; the first pre-molar ; the second molar ;

the third molar, and, lastly, the canine tooth. Naturally, it is more usual for the affected tooth and eye to be on the same side of the head, but there are several cases reported where the eye of the opposite side has become inflamed while that on the same side has been unaffected. An X-ray photograph of an upper left first molar in a man of seventy showed a subacute abscess which was associated with a mild iritis of the right eye; extraction of this tooth was followed by complete recovery of the eye in fifteen days.

"Chronic rheumatism" (*i.e.*, fibrositis and myositis) and rheumatoid arthritis are two common general infections which may originate from focal sepsis, the focus being very frequently found in a tooth or teeth. Bilateral iritis is the most usual type of eye infection associated with chronic rheumatism and, although this iritis can be temporarily cured by direct treatment of the affected organs, recurrence is very probable unless the focus of infection is treated, and the rheumatism thereby alleviated. Proof of the elimination of the septic foci can be found both clinically and in the laboratory. Clinically, the discovery and removal of septic teeth will not only cure the iritis but, after a preliminary exacerbation, will also result in improvement of the rheumatism, excluding in rheumatoid arthritis any permanent damage to joints that may have occurred during the continuance of the arthritis. That the whole focus of infection has been removed can be proved in the laboratory by determining the sedimentation rate of the red blood corpuscles. In nearly all acute infections the sedimentation rate is raised, returning back again to normal within a few weeks of recovery. Franceschetti, as the result of the study of the sedimentation rate in a large number of cases of dental sepsis, shows that the rate is raised in deep caries, alveolar abscess, in an active granuloma, or in an infected cyst. Conversely, a large, fibrous, chronic granuloma, or an uninfected cyst, will fail to produce the rise in rate. It must be noted that chronic rheumatism is really an acute, or subacute, disease, and thus produces a rise in sedimentation rate.

The value of this test is that it can be quickly and easily carried out by a pathologist and an assurance obtained that the focus of infection has been eradicated.

Now let us consider *ophthalmia, unattended by general symptoms, originating from a dental focus of infection.* This will be best illustrated by citing a number of cases, both from current literature and from my own practice; Murphy reports two cases of considerable interest. In the first, a patient suffering from left-sided, homonymous hemianopia was found to have a devitalised upper left second molar. Removal of this tooth resulted in a complete cure. His second case is of an abscessed, devitalised upper canine producing iridocyclitis, followed by retinitis and accompanied by an upset of the balance of the extra-ocular muscles. Extraction of this tooth also brought about a complete cure.

A somewhat unusual ocular infection resulting from dental sepsis has been brought to my notice. The patient complained of ocular pain and loss of vision. On examination, a diagnosis of papill-œdema was first made. Subsequently this was changed to neuroretinitis and a focus of infection sought. The upper first molar on the same side was found to be abscessed, and after its removal the condition of the disc improved, although a central scotoma remained permanently.

A case of my own is of some interest, illustrating especially how thorough the search for dental sepsis must be. The patient was a woman aged about forty-five, and had been complaining for two years of constant pain, at times of great severity, over the right upper jaw and radiating over all that side of the face. At the same time she had had recurrent attacks of conjunctivitis, accompanied by a tendency towards epiphora. She had been examined on several occasions by ophthalmic surgeons, who had all diagnosed a focal infection and sent her for dental examination. As a result, she had the two upper pre-molars on this side removed, both of which were found by X-ray examination to be infected. After a short respite, the symptoms recurred, and, after further dental examination, the three upper molars on the same side were extracted. No amelioration of the condition resulted from this, and she was then sent to an ear, nose and throat specialist for a suspected antral infection. The maxillary antrum on this side was opened on two occasions, on neither of which was any infection discovered.

Some few months after the last extractions an upper denture was made for her, which she was unable to wear, as it both caused pain in the jaw itself and exacerbated the facial symptoms. She did nothing about it for the next six months, when she came to see me, *i.e.*, eighteen months ago. I X-rayed the jaw on this side and found in the pre-molar region an extensive area of diseased residual bone, and above it a loculated cavity which appeared to be a cyst. I then had stereoscopic films of her head taken, finding from them that what appeared to be a cyst was a somewhat abnormal but healthy extension of the antrum. This anatomical peculiarity was bilateral, the antrum actually extending on both sides into the anterior ends of the zygomata. The diseased bone, however, was very plainly visible,

and I decided to remove this. Under a general anæsthetic I opened the gum along the whole of the right upper jaw and performed an extensive alveolectomy, closing the gum afterwards with silk sutures, which I removed after forty-eight hours. Twelve hours after the operation her facial pain subsided, the conjunctivitis clearing up in a further few days. I saw her next about six weeks later, and in the interim she had had no recurrence. I then made her a denture, which she wore without any discomfort. A further four months elapsed before I saw her again, and she had had no recurrence of either pain or conjunctivitis. Since then she has been abroad, and I have not heard from her.

The importance of this case is in showing the necessity of looking for residual bone infection as well as a diseased tooth in any search for dental focal sepsis.

My next case is a man aged fifty, who, following war service, was discharged from the Army in 1918 with phthisis. This became quiescent after a year's treatment, and he was able to continue his normal occupation. Two years later he was in a motor accident and received a severe blow in the chest, which resulted in a recurrence of active phthisis. A further six months elapsed before he was once more proclaimed cured. Then in 1926 he had an anal fistula, a disease sometimes associated with tubercular infection, which was successfully treated by surgical means. For the next eight years he was free from any illness until four months ago, when he developed a corneal ulcer in his left eye. This was diagnosed as of tubercular origin, and at the same time a focus of infection was sought. He went to his dentist, who, on clinical examination only, declared that there was no focus of infection in his mouth. He was then submitted to every form of investigation to find a possible focus, the results in every case being negative. His ophthalmic surgeon was still not satisfied and, requiring a further investigation of his teeth, sent him to me. I X-rayed his mouth and found that the lower right second pre-molar was a devitalised tooth with a large granuloma at its apex; also that, when the lower right first pre-molar had been extracted some years previously, the apex had been left behind, and it, too, had a granuloma attached. I removed them both, and a fortnight later, which brings the history to date, his oculist pronounced the eye condition definitely improved.

The dental surgeon cannot satisfy himself of the absence of a focus of infection in the mouth until he has made exhaustive X-ray and clinical examinations. Particular attention should be directed towards the discovery of a cyst, residual infection, or a buried or misplaced canine, pre-molar, or supernumerary tooth, besides the more commonly found misplaced upper or lower wisdom tooth.

The most usual treatment is extraction of the offending tooth, or teeth, and this should be followed up, after a short interval, by an X-ray examination to determine the presence, or absence, of residual infection. When the infection has been present for a long time, resolution may be very slow, and a course of injections of a vaccine, preferably autogenous, is occasionally of help in promoting healing of the associated symptoms. It is, therefore, advisable, when preparing to extract a tooth for reasons of focal infection, to arrange for this to be done under sterile conditions, and to have cultures prepared both from the apex and from the depth of the socket. These cultures can be bulked by the bacteriologist, and he can then prepare the vaccine if and when it is needed. Slow resolution of the associated symptoms is the criterion for its use.

Only too commonly we are faced with a patient who is extremely reluctant to lose the condemned tooth, especially if it is an anterior one. It is justifiable, if the area of apical infection is not too large, to open up the root canal and to treat it. Continual X-ray surveillance is essential, and lack of progress must mean extraction. Root treatment can be aided by apicectomy and scraping the surrounding alveolus in the course of the operation. Apicectomy must never be attempted if more than the distal third of the root is involved, and, in fact, this degree of infection will determine also the possibility of successful root treatment. There are a considerable number of reported cases of completely successful eradication of focal sepsis by these methods, but great care must be observed that, while resolution of the focus is being more slowly accomplished—and it undoubtedly is by the latter methods—greater damage is not being done to the secondary site.

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The Editor will, at all times be glad to consider articles or sketches, provided that they are accompanied by the writer's name and address, not necessarily for publication. Authors who desire reprints of their papers should make their own arrangements with the Printers when they return their proofs. All contributions to be addressed to *The Editor*, who does not accept responsibility for the views expressed by contributors.

The Niggers, Christmas, 1935

Massa Johnson .. C. A. Boucher.
Big Drum .. T. G. Humby.
Little Drum .. J. E. Elliott.
Piano .. .. J. R. Forbes.

THE group of coloured gentlemen gathered before a camera on the steps of the Colonnade on the morning of Christmas Day were not, as we heard an old lady suppose, distinguished visitors being introduced to the Hospital by its chaplains. It is true, however, that in a sense they were missionaries. They were, in fact (reader, you have guessed it already), the "Niggers" performing their annual mirth mission. After some delay, owing to a certain lack of concentration due to failure of appearance of the "little dicky bird," the group was perpetuated for all time, and then proceeded to Evelyn. The chilliness of the morning, the unwontedly early hour, and the lack of ballast laid in, always render the earliest performances of the "Niggers" the least satisfactory, and a further contributory factor to this result is the smallness of the audience at eleven o'clock.

The Piano, Massa Forbes, having been installed, the ceremony was begun, as it is begun in every ward, in the traditional way. There was the usual sudden descent from outside of a pirate, who, having seized a note, "Mi-mi-mi," carried it to the waiting brethren, who, with a chorus of "Mi-mi-mi's" (all by now at approximately the same pitch), entered singing lustily :—

"Here we are the Niggers again . . ."

To the Surgical Missionaries fell the by no means enviable task of breaking the early morning ice. Their song, though the words struck chilly on our ears, was rendered with an *esprit*, *élan*, *verve* and *joie de vivre* that warmed us in the first verse and brought us to fever heat in the second.

"I do like to be beside the seaside," they sang, and we shivered at the sound of the waves, but with the parody :—

Oh ! we do like to open the abdomen,
Oh ! we do like to play with all the guts,
Oh ! we do like to see the blood go splash, splash splash,
As the R.S.O. goes slash, slash, slash.
So just send us up your favourite patient ;
We'll wield a very pretty knife.
For we are four house wizards,
And we'll whip out all your gizzards.
We're doing service, we're saving life,

Oh ! I do like to linger on my night round.
I do like to sit beside the fire,
I do like to hear about the big scandal,
Such as who's her man or who was his gal ?
So just let me be beside the fireside,
I'll never hold the nurse's hand.
But I'd like to hear her views,
And discuss the latest news
Beside the fireside, beside the fire.

—we were warmer.

The Out-Patient Officers, clad as costers, then sang with parodies "The wheel of the waggon is broken."

This was followed in the usual way with a deafening detonation from the Big Drum, and one-sixteenth of the performance was over, and without recourse to stimulants.

Patience and Samaritan was the next objective, where, after the same initial ceremony, all eyes were focussed on the Obstetric Residents.

I'm going to sing a nonsense song,
No doubt you'll think it weird,
The jokes are either very new or else have grown a beard.
The curate came on Saturday to our annual dinner,
But when he pulled his knitting out, we shouted,
"Mr. Skinner.
Oh ! you can't do that there 'ere,
No, you can't do that there 'ere.
Anywhere else you do that there,
But you can't do that there 'ere."

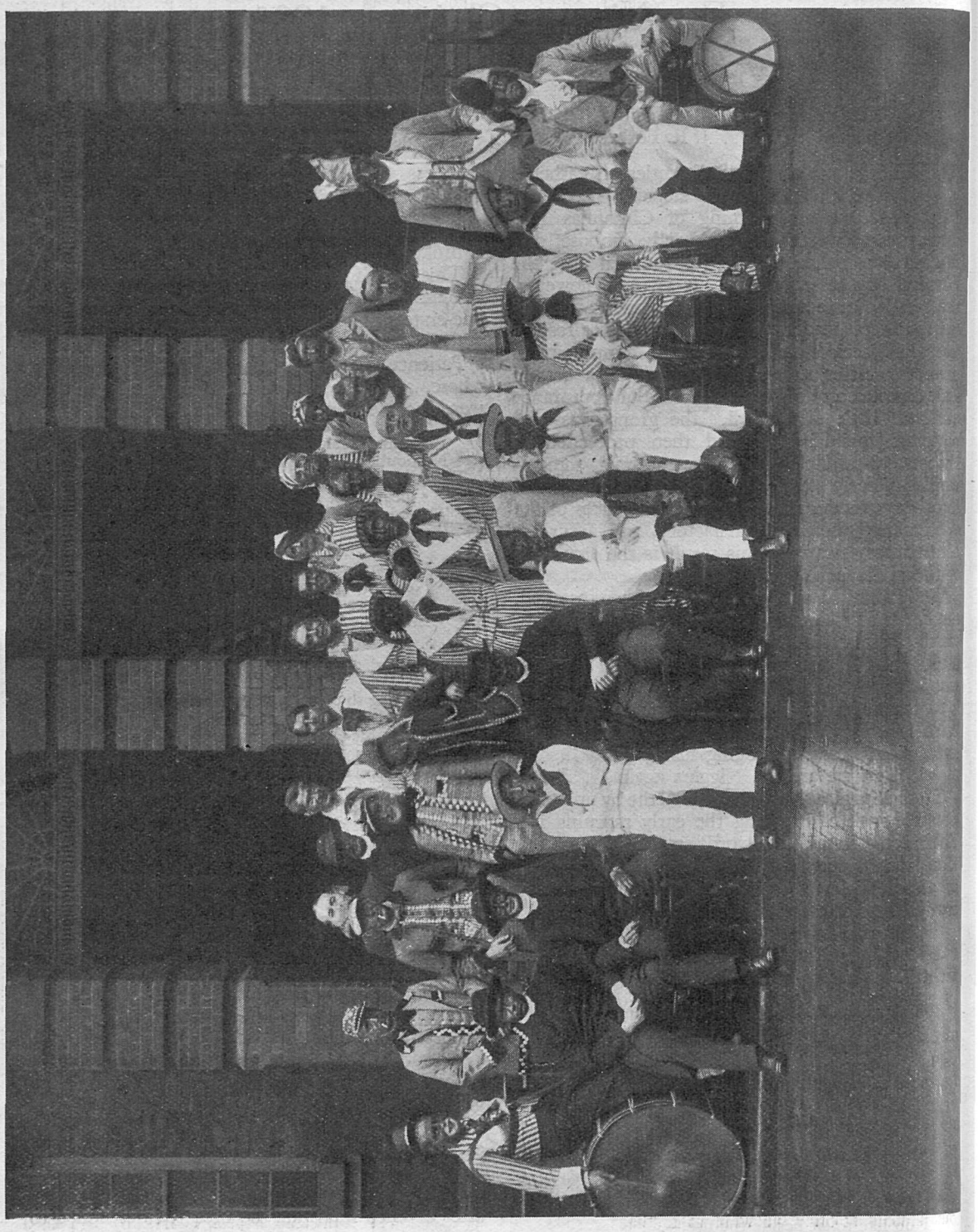
—they sang, and parodied it briskly with :—

I'm going to do a round in Queen,
Although it's dinner time.
The trouble is, I never know
That Sister will not mind.
The patients really should be seen,
But we've been up all night ;
So Sister rushes out at us,
And screams in her delight :
"Oh ! you can't do that there 'ere. . . ."

Massa Moir, following a beat on the big drum, then asked Massa Johnson, who in fifty years has never been able to solve a riddle : "Say, Massa Johnson, can you tell me what it is that goes 'Boomp, boomp, ninety-nine' ?" Massa Johnson had a brave try at that one : "It's a centipede with a wooden leg." "Oh, no, it isn't, Massa Johnson. It's Dr. Marshall examining a chest."

The A.H.S.'s sang, very appropriately "In cellar cool," though their agonised faces as they grappled with the descending "i-n-g" of "drinking" contrasted strangely with the rhapsodic expression of the song. The ultimate G (*profundo basso*) was a shambles shared by all.

The Surgeon's Room was conveniently near ; after a veiled interlude the brethren descended to Christopher, where brothers Ears, Noses and Throats varied "Red Sails in the Sunset" with



" Red Cells in the Urine," and the House Surgeons sang their second song, " Olga Puloffski, the Beautiful Spy." To which they carolled :—

The scene is a surgical ward round,
The Cantabs. and Fellows are fawning;
But who's the M.C. who with gay repartee
Puts an end to their indolent yawning ?
It's dear Joey Hughes, ever young, ever gay,
Our Wimpole Street surgeon of laughter ;
Who arrives when his H.S. is safely in bed,
Enjoying a quiet morning after.
Sends off his H.S. with a whimsical laugh—
Joey, our Joey, the wit of the Staff.

The scene is the Gordon Museum,
The bottles are piled to the ceiling.
But who makes them sway, as with manner so gay,
His knowledge of Path. revealing ?
Pathologist-Colley, so handsome and tall,
Renowned for his ruddy complexion ;
He likes diathermy for stopping the blood,
But you ought to see his dissection.
One mighty stroke, and the tumour is gone ;
Our Davies-Colley, he doesn't take long.

From Christopher it is only across the passage to Job. Here Massa's Mortie, Martin and Malcolm gave tongue for the first time, varying " Uncle Tom Cobleigh " with a description of the Combined Round, ending :—

And who else will look at this very good case ?
All along, out along, down along, lee.
Oh ! I guess there'll be lots of the chosen race,
And doctors from China, Parsees from Bombay,
M.D.'s from Boston, Old Uncle Arthur and all
And when comes the end of this shocking affair ?
All along, out along, down along, lee.
Just about four there's a stir in the air,
And Boland and Marshall and Cony and Symonds
and Old Uncle Arthur go happily off for their tea.

The A.H.S.'s sang again (Tune : " So early in the mornin' ") :—

And when at night you're taking in
You're called up time and time again,
Little Tommie won't stop crying,
Mother says she's sure he's dying.
Of course, he's got an awful cough,
His bowels are working on and off.
Pulv. ipecac., in desperation ;
Back next night with constipation.

Sister Corney's got a hunch
That housemen are a stupid bunch.
If you erect a Balkan frame,
She's sure to pull it down again
Gorblimey ! we're so tired,
Our thoughts are not inspired ;
Especially when required
Before the break of day.

Two wards without refreshment was enough. By now it was opening time in the wide world outside ; in the passage it was rum and ginger, but almost at once we were in Lydia.

The H.S.'s song was followed by the first appearance of the H.P.'s. The healthy tan of these sailors was not acquired by living in the College. They sang to the tune of " Four Jolly Sailormen " :—

We're not like those medicos you see in the news,
Delivering quadruplets and airing their views
On night sweats and flatulence, body odour and tea
—Not John Forbes, Dick Dickinson, Tony Boucher,
nor me.

We ain't got no panaceas at sixpence a box ;
We can't cure your hæmorrhoids with iodine socks,
Nor yet by manipulating your vertebræ
—Not John Forbes, Dick Dickinson, Tony Boucher,
nor me.

The big drum beat, and Massa Johnson asked, " Did you hear that playing ? " Big Drum replied, " Yes, I hear that pla-aying." It was Gabriel playing, and the whole chorus cried the invocation :—

" Blo-ow, Gabriel, blo-ow,"

and the song followed, with Massa Johnson and the Big Drum as soloists.

From Lydia we went to Martha, on the cold, cold ground. The wind whistled through the Colonnade, but Martha was the last before lunch. The Obstetric Residents made their second appearance, singing to great advantage the metrical lilt of " Joseph the Juggler" :—

Joseph the Juggler's a big circus star,
He'll juggle his hoops with a happy Houp-La ;
Wonderful, marvellous things he can do
With a hat, cigar, or a large billiard cue.

Clap hands for Joseph the Juggler,
He's studied the art in Japan.
The ladies cry " Whoops ! " as he juggles his hoops
Oh ! what a clever young man !

Massa Hamilton, straight from the beach at Southend with top hat and cigar (we hoped that loofah wasn't our own), and striped except where he was black, sang with his dusky colleagues :—

Clap hands for Harold the midwife,
He practised the art in Mayfair ;
The ladies cry " Damn ! " as he orders the pram,
And father pays up as he can.

He's Harold the midwife, the star of Mayfair ;
He saves all the debs. from pain and despair.
Wonderful, marvellous things he can do
With a Cæsar, or forks and a pig's bladder, too.

Clap hands for Harold the midwife,
Balloting the head and the back.
Up—high, down—low ;
Over and under and OUT they go.

The last item before lunch was the A.H.S.'s, who numbered in their midst a very reluctant soloist. In the order, Massa Moir, Massa Lillicrap, Massa Kark and Massa Clarkson, they told of the delight of drinking, and with the sound, lunch loomed large.

It was large.

At 2 o'clock the venue was the Out-Patient Hall, where the brotherhood was met with roars of applause from thousands of children's throats well stuffed with buns.

To their delight the Clinicals sang, " Blow, Gabriel, blow," and were followed by the O.P.O.'s with " Knocked 'em in the Old Kent Road " :—

" Doctor ! " all the patients cry,
" 'Ere I am again, Sir.
I've got such a pain, Sir.
On my way I thought I'd die,
Coming down the Old Kent Road."

But the high light was the singing by the children. These, conducted by Massa Johnson and Massa Palmer, sang the original songs of all the parodies. The Out-Patient Hall rocked to the strains of " BUR-ling-ton BERT-ie from BOW," " Olga Puloffski, the BEWTiful Spy," and " I DO like to BE beside the SEAside," till the band itself was drowned.

The band was stationed in the hall for the afternoon, and for that turn supplanted the " Niggers' " piano.

Ruth and Barnabas was the next mission camp, not reached, owing to the community singing, until some forty-five minutes from the start. Here Mortie, Malcolm and Martin sang again—the last desporting himself commendably, especially in view of his suffering from a universal and distressing complaint.

Tune : " Burlington Bertie from Bow."

Massas Mortie and Martin indicating Massa Malcolm :—

He's Symonds, H.P.,
And we're sure you'll agree
That the spirochæte's busy again.
There are men with tabes,
And women with scabies,
And G.P.I.'s insane.
Their pupils won't work,
They can't get a jerk,
They're all lumbar punctured
(Our Malcolm won't shirk).

They're bats, bats,
And see purple rats,
And think they are Queens of the May.
So we think you'll confess
The spirochætes had a good day.

Here the Ear, Nose and Throat Surgeons again trilled brightly, and the absence of Mr. Thompson's name was due to the indisposition of his house-surgeon.

A tolerable wayside halt was the Medical Registrar's Room (rum and punch), and those who could get in ascended to Queen in the lift. The rearguard toiled up the stairs, and, after the party had consolidated, the Resident Obstetricians sang further variations on " Joseph the Juggler "—

Clap hands for elegant Frankie,
Who wanders all over the place.
The ladies are tough,
But are there enough ?
Ask Frankie, of Devonshire Place.

He's Frankie, the surgeon, the man with the knife.
He's busy all day, and it's generally a wife.
Wonderful, marvellous things he can do
With some catgut, blue paint, a dilator or two.
Clap hands for elegant Frankie,
Repairing, curetting and such ;
Up—West, down—here ;
Backwards and forwards he goes all day.

And to the tune of " You can't do that there 'ere," there followed :—

And when the evening shadows fall,
It's Vic that takes our time ;
For babies come and go,
With forceps all the time.
It's only when we make a mess
In Sister's room with John,
That Sister frowns on us and says :
" Oh ! you can't do that there 'ere . . ."
No ! you can't do that there 'ere ;
Anywhere else you can do that there,
But you can't do that there 'ere.

The O.P.O.'s broke the wheel of the waggon again, and the party tottered to Mary. The House Physicians gave their second turn of " Four Jolly Sailormen," with a variation specially for Mary :—

Our wards are not full of folk that nearby reside,
But stuffed up with plutocrats from the whole countryside ;
And the opening of Nuffers was hailed with great glee
—By John Forbes, Dick Dickinson, Tony Boucher, and me—

Massa Mann's " and me " echoing from the end of the verse like some elfin pipe. This was followed with " Turn 'Erbert's face to the wall, Mother," and the parody was :—

Now John Forbes one evening in Mary
Was filling with air an A.P.,
When the patient flew off like a fairy,
And was last seen at Southend-on-Sea.

Turn Johnny's face to the wall, Sister,
Screw down both ends of the bed ;
When next he attempts pneumothorax,
You must stuff her pyjamas with lead.

Now Dick is a well-dressed young resident,
He wears clothes that fit like a glove ;
As " vice " to our popular President
He mingles his work with his love.

Turn Dickie's face to the wall, Sister,
A dastardly scoundrel is he ;
He races them round in his sports car,
And visits the country for tea—And how ?

Now Boucher is Poulton's Physician,
Of the Oxygen Tent he's the key;
His frown merely marks indecision,
To give her two minutes or three.

Turn Tony's face to the wall, Sister,
At week-ends he never is seen;
Whether Harley Street, Wigan, or Glasgow,
He is certainly seeing the Queen.

Now Willie's the man to inspect 'em;
His manner, pray don't think the worst,
When he passes the tube by the rectum,
He's employing the methods of Hurst.

Turn Willie's face to the wall, Sister,
He is bound to be a success;
Tapman he'll lose, he'll no longer transfuse,
Three guineas per pint, more or less.

The Clinicals sang here, and then again in their own ward, the next stop, across the way (to the tune of "Frankie and Johnnie"):—

I once made a date with a Sister,
And asked her to my flat so new;
But she went and ruined my evening
By refusing to take off her blue.

The Matron called me to her office,
And there she was clad in a fur;
She asked me to make myself easy—
Now I wonder what her intentions were?

A nurse went to see the same Matron,
And she didn't go there just for fun;
She blamed a student for giving her
Just a teenie, weenie, weenie bit of fun.

We once had a wardmaid called Fanny,
And also a porter named Joe;
Well, we caught them one night in the subway—
He was kissing her there, below.

The "Niggers" had now sung for five hours with an interval for lunch, and Bright Annexe, Stephen and Addison remained before the next interval, for tea. The performances were duly repeated here, by House Physicians, Out-Patient Officers, and the Ear, Nose and Throat fraternity.

After six hours of singing came tea, and there then remained three wards unvisited. Dorcas, Cornelius and Lazarus were, however, reached in time, and the "Niggers" finished in Astley Cooper with a final burst from the House Surgeons and Clinicals, a frenzied curtain being formed behind Massa Johnson and the big drum by the waving arms of the missionaries at the end of their final evangelic exhortation, in which they told of the toils of hell and dilated on the delights of Heaven:—

Go on and blow, Gabriel, blow;
I want to join your happy band,
And play all day in the happy land;
So blow, Gabriel, BLO-O-OW!

Starvation

A Paper read to the Physiological Society by By J. J. Davis, Esq., and A. M. Edwards, Esq.

ANY process of metabolism involves a consideration of the relation between the amount of food and oxygen taken in by the organism, and the amount excreted in the form of waste matter. In the growing organism, there is naturally a greater intake than output, by reason of the increase of mass of body tissue, whereas the amount of living material in the adult animal is maintained fairly constant, and equilibrium thus being arrived at. In the starving animal, with which we are concerned in this paper, there is still a production of energy to maintain movements of heart and lungs, and for the performance in some cases of a considerable amount of exercise, but only oxygen is taken in. For a considerable period, however, the animal remains in a condition in which it is able to take advantage of any food which is presented to it. The animal is therefore using its body substance for the production of energy.

Metabolism during starvation may at first sight appear to be an abnormal process, but a careful consideration of its various aspects will show that it represents metabolism in its simplest form. During fasting there is no cessation of consumption of material for energy production, although there is none introduced for the repair of tissue loss. The result is a gradual diminution of body weight, which is an invariable sign of inanition. The organism is, in effect, consuming itself, and, should the process be prolonged, death must inevitably follow.

Experiments show that the power of resistance to inanition, both in man and animals, is greater than is commonly supposed, but it is interesting to note how it varies. Carnivorous animals resist

longer than herbivorous; thus the duration of inanition in dogs is about 33 days, in cats 20 days, whilst in the rabbit it is only 13 days at the most. The pig, by reason of its size, lives 34 days, whereas a small animal such as a mouse lasts only two or three days. Cold-blooded animals stand starvation for marvellously long periods, a notable example being the salmon, which during its visits lasting seven or eight months to fresh water to spawn is said to take no food. In spite of this it maintains considerable body strength, as many salmon fishers can testify. The testicles and ovary develop enormously at the expense of muscles, which may lose 55 per cent. of their body weight, but Meischer has shown that, despite this emaciation, the muscle fibres present no appearance of destruction. The python and rattlesnake are able to exist for two years or more without food, the tortoise 18 months, the frog and salamander a year. Speaking of the duration of life in starvation, and its variability in man, Hippocrates wrote in his "Aphorisma," "Old men endure fasting more easily than men of middle age, youths very badly, and, worst of all, children, especially those of a liveliness greater than the ordinary."

One fact, however, that all have in common is that they die when the loss of body weight has reached about 40 per cent.

During a long fast, all the organs and tissues contribute their share towards the maintenance of the organism as a whole, but the organs which are of paramount importance for the continuation of life—heart, lungs, central nervous system—remain in a better condition of nutrition and lose relatively little in weight, for they make a better use of this contribution for the requisite development of energy, and perform their functions at the expense of less important tissues—glycogen stores in the liver and muscle, adipose and glandular tissue.

For the determination of the quality and quantity of the material consumed daily during starvation, the quantitative analysis of the chemical products contained in the urine, and the carbon dioxide discharged from the lungs and skin, is indispensable. From the quantity of nitrogen we can deduce the quantity of protein consumed. From the quantity of carbon we can find, after deducting the carbon of the protein used, the approximate quantity of fat consumed.

During the first days of starvation, the glycogen stored up in the body is consumed more readily than fat, thus effecting a great saving in protein. The organism subsists for a considerable period using fat as its chief source of energy, but towards the end of a long fast the excretion of nitrogen shows a sudden rise, indicating an increased consumption of protein, and death follows speedily.

Innumerable cases of fasting have arisen in the past, some resulting from disease or misfortune, some undertaken with a view to scientific experiment, or suicide. Viterbi, a lawyer, was condemned to death on a charge of assassination, and starved himself to death to avoid execution, keeping a diary in which he stoically recorded his sufferings. He died after only seventeen days, but he abstained almost entirely from water. Terence McSweeney, Mayor of Cork, with a number of other Sinn Feiners, resorted in 1920 to a hunger strike which, in his case, lasted for 74 days, terminating in delirium and death in Brixton Prison. The alchemist Duchanteau, so Diderot relates, fasted for 25 days owing to disease, during which time he drank his own urine. In cases of mental anorexia brought on by emotional disturbance, patients have been known to go for extremely long periods with little or no food, having lost the desire for it, and it is interesting to note that in spite of their extreme thinness, they retain a good deal of their strength and do not appear to suffer pain or inconvenience. Professor Dejerine, of the University of Paris, describes a case in which a woman suffering from this type of anorexia had got to the point where she could live if she had a bowl of sugar water beside her, into which she dipped a paint brush from time to time and moistened her lips. This was her only nourishment. Patients suffering from duodenal ulcer often desist from taking food to avoid pain, and a case was recently reported from America of a fast of this nature lasing 31 days.

The fasts of most interest are those undertaken voluntarily for the purposes of experiment. The first investigations of this kind were by Ranke, Pettenkofer and Voit, on fasts of two or three days, followed in 1893 by fasts of seven to ten days in the professional faster Cetti. In 1898 Johannson and others studied the extraordinary case of a voluntary five-days' fast in a medical student.

Succi is the classical professional faster, and has frequently fasted for 20 to 30 days at different times in Cairo, Milan, Paris, Rome and America, and we shall consider some of the aspects of his fasts in detail. He was known to take laudanum in considerable quantities to stay the pain in his stomach, but, apart from this, he appeared to suffer very little inconvenience, and was capable of considerable exertion, such as walking or riding, without ill-effects. In one of his fasts he spent the 11th day in bed, and on the 12th day he rode a horse for $1\frac{3}{4}$ hours, raced for eight minutes with some students, and gave an exhibition of fencing

in the evening. He did this to demonstrate the influence of work on fasting metabolism. It had been previously found that there was generally a rise of protein metabolism during work. In the case of Succi the rise was not so marked, so the work done was evidently at the expense of increased fat metabolism. Further and more careful experiments on the effect of muscular exercise appear to show that Succi was not in reality an exception, and it is generally accepted that work done during starvation is at the expense of fat. His daily nitrogen excretion was carefully investigated to estimate the amount of protein metabolised. It was found that the daily average consumption of protein was very small. This, no doubt, explains to some extent Succi's extraordinary power of undergoing starvation for such long periods.

During the first three or four days the nitrogen of the urine does not gradually decrease, as might be expected, but increases. The explanation of this is that during this time, while glycogen is being used, its gradual diminution must be accompanied by a rise in protein metabolism. The falling off of nitrogen only appears when the glycogen has been used up. In the experiment conducted on the fasting student, the excretion of nitrogen was 12.17 grams on the first day, 12.85 on the second day, 13.61 on the third day, 13.69 on the fourth day, and on the fifth day the decrease began. In Succi's case it was found that on the first day he excreted 17 grams of nitrogen, on the 21st day only 2.82 grams, and on the 29th day a rise occurred and 4.08 grams were excreted. The investigators state that after this there was a sudden rise suggesting the so-called pre-mortal rise, which caused them to stop the experiment.

Brugsche, also making investigations on Succi, showed that quantities of B-hydroxybutyric acid and acetone appeared in the urine between the 23rd and 30th days of fasting. This would indicate that there is incomplete combustion of fats due to the absence of carbohydrates. In this connection it is interesting to note that in 1931 Heinbecher, a member of the Canadian Arctic Expedition, was able to investigate the degree of ketosis present in Eskimoes. He was able to make observations on five subjects who were fasted for seven days. He found that a much smaller degree of ketosis existed than the average for white persons living in the temperate zone, and it seemed to indicate that these people, accustomed as they are to a rich fat diet, are able to burn a considerable amount of fat to completion without the aid of carbohydrate. Deuel and Gulisch at Los Angeles in 1932 showed that ketosis developed to a greater extent in the female than in the male, and, further, that obesity was not a predisposing cause.

Whilst considering the occurrence of ketosis during fasting, it has been found that a large proportion of the nitrogen excreted in the urine appears as ammonia nitrogen. One set of results show that on the first day 0.4 grams were excreted, whereas on the 12th day the amount had risen to 1.05 grams. The rise in the amount of acetone bodies was therefore accompanied by a rise in ammonia nitrogen, indicating that a large amount of ammonia was being produced from urea by the kidney, to neutralise the acids in the blood present by reason of the incomplete combustion of fats.

The acetone bodies were found to vanish entirely when small amounts of carbohydrates were given.

With reference to the excretion of chloride, it has been shown that this almost vanishes from the urine, so great is the retentive power of the body for its sodium chloride constituents. Even on resumption of a normal diet following a fast it is some time before the chloride content of the urine again reaches normal.

Sulphur, excreted in the form of alkaline and earthy sulphates, arising, as it does, from the breakdown of protein, follows a curve similar to that of nitrogen. The two curves are not strictly parallel, as the sulphur products are retained to some extent according to the degree of concentration of the blood plasma.

The quantitative estimation of phosphorus excreted has given not only an indication of the amount of organic compounds of phosphorus metabolised, but it has also been shown that the relative increase of phosphorus in proportion to nitrogen indicates that bones also waste during starvation. The consumption of phosphorus compounds lessens, to a certain extent, the consumption of nitrogen.

Succi's fasts differ from those undertaken by others in the fact that he remained in an almost physiological state of health. All the important functions, circulation, respiration, production and regulation of heat, muscular and nervous activity, and the sense of well-being were maintained within normal limits.

All results from both long and short fasts seem to be in fairly general agreement with each other, the only difference being the physical condition of the subject, and they may be briefly summarised thus : The glycogen stores of the body are quickly exhausted, fat is then used to provide energy, and by its combustion the animal is able to exist throughout practically the whole period of its

fast. Protein is metabolised throughout, but shows a remarkable rise before death. Moreover, the absence of carbohydrate produces a state of ketosis.

The question arises as to the mode of mobilisation of body materials from the storage depots. In the case of glycogen and protein, these are, no doubt, converted by the normal means to glucose, which is carried in the blood. The blood sugar remains at its minimum throughout the whole period, the sugar being produced from the gradual and continual breakdown of protein. It was previously thought that the transport of body fat in hunger was effected by the blood system, the fat being taken up directly into the capillary blood vessels. Efforts of many investigators yielded few conclusive facts. Rhony, Mortimer and Ivy at Chicago in 1932 showed that the fat content of the lymph in fasting animals was abnormally high, and also that the sugar content of fasting lymph was considerably less than that of the corresponding blood and normal lymph, which speaks strongly against the transport of mobilised fat in the form of sugar. Most of the fat in fasting lymph is mobilised reserve fat.

In all the experiments previously mentioned, water was taken by the subject as required. Life without an adequate supply of water is impossible, and whilst an animal can undergo starvation until 40 per cent. of its protein has been lost, it is only able to survive a loss of 11 per cent. of its water. The taking of large quantities of water during a fast causes the elimination of larger amounts of nitrogenous products. An increase of from 3 to 5 per cent. has been noted in such circumstances.

If, after a long period of starvation, the animal is again fed on just sufficient food, both nitrogenous and non-nitrogenous to make good the loss of nitrogen and carbon, it is not possible to maintain it in the state of nutrition existing following the fast. It is found that, instead of being at constant weight, the organism continues to lose weight. This is due to the fact that the ingestion of food stimulates the tissues to greater activity. To attain equilibrium it is necessary to give about three times as much nitrogen and twice as much carbon as the animal lost daily during the period of inanition. Further, the capacity of the body for dealing with ingested sugar is very much impaired. When sugar is given, it may be excreted unchanged in the urine.

What are the causes of death from starvation? In view of the experiment of Meischer on salmon previously mentioned, it would appear that the cause of death is not due to any essential change in the composition of individual cells. Therefore it may be due, firstly, to a general failure of all body cells, or, secondly, to injury of those organs essential to life. If death is due to cell failure it would take place when a definite percentage of protein has been lost. This is not true, since the loss varies between 20 and 50 per cent. Should death be due to injury of certain organs, then injury must be due to emaciation or insufficient nutrition. It is probable that both these factors are responsible for final failure.

A paper of this nature would be incomplete without some reference to hibernation. In lower animals this phenomenon is quite the rule, but is distinct from inanition as a state of almost total functional inactivity sets in. Thus the liberation of energy is diminished, and the daily loss or combustion of material is reduced to a minimum.

During hibernation, the animals exist at much below their normal temperature, producing a state of profound torpor. Breathing is suspended or becomes slow, and the internal temperature may fall as low as 4° C. Occasionally the animal wakes and, leaving its hiding place, discharges its excreta, its temperature returning to normal during this time. Professor Pembrey has shown that during hibernation in the marmot the respiratory quotient fell as low as 0.3 to 0.4. This low figure would appear to indicate that oxygen is retained to convert fats into carbohydrate.

Man, under certain special conditions, does not appear to be wholly devoid of this peculiar capacity of hibernating animals, the power to reduce his metabolic activities to such a degree that he becomes lethargic, and remains in a fasting condition for a marvellously long time. It is said that the fakirs in India are able to throw themselves into states of profound lethargy by hypnotic means. In certain hysterical and psychopathic people, similar phenomena have been observed. Richet, at the Salpetrière in Paris, found that in such cases the pulmonary ventilation and discharge of carbon dioxide had been diminished. In 1827 Dr. Asella described the case of Anna Garbero. This woman lived in a state of lethargy for 32 months and 11 days, during which time she took no food or water.

The general conclusion to be drawn from all investigations into fasting in animals and men is that there are two fundamental conditions if life is to last for a long time without an external supply of food: (*a*) there must be a certain provision of oxidisable materials stored up in the organism before the fast begins; (*b*) a greater economy must be exercised in the absorption and consumption of these materials. In inanition life lasts for a shorter time because there is little economy, whereas in hibernation expenditure is reduced to a minimum, and life, therefore, lasts for an almost incredible length of time.

Correspondence

Animals' Skulls

To the Editor of the GAZETTE

SIR,—I should like through you to invite any old Guy's men who have animals' skulls which they do not need to present them to the Dental section of the Gordon Museum, where the series illustrating the comparative anatomy of the teeth is being reconstructed.

Further skulls of elephants and hippopotomi, however, would occasion us some embarrassment. Specimens will be gratefully received by

Yours, etc.,

THE CURATOR,

Dental Section of the Gordon Museum.

Dental Department,
Guy's Hospital, S.E.1.

Patho-Dental Histology

To the Editor of the GATETTE

SIR,—A few weeks ago I was talking to an old friend who is a Regius Professor in a famous university and with whom I worked as co-examiner for several years. He had just finished an examination which seemed to have been a moving experience. I asked him what the trouble was, and he replied that, although the candidates seemed to have a fair knowledge of their work in the "vivas," he had never marked a collection of papers in which he had found such illegible writing, bad spelling, lack of knowledge of King's English, and inability of the candidates to express themselves clearly in writing. He said he could only account for it by supposing that less strict attention is paid to general education at school than formerly.

When I realise that people actually do exist who are not shaken to the core by such a term as "Patho-Dental Histology," I begin to think that there must be something in what he said.

I am bound to confess it shook me. Not because I have a sensitive mind, but because I regard it as an index of the chaos of technical jargon which can exist in the mind of a teacher or student, and as a reflection on his general education.

It ought not to be necessary to speak of "Normal" Dental Histology. "Dental Histology" alone expresses quite clearly and adequately what is meant. In contra-distinction, "Morbid Dental Histology," "Dental Morbid Histology," or "Dental Histo-Pathology" are all more in accordance with tradition and education—I will not say scholarship.

"Oh, Mister Hughes! *dear* Mister Hughes,
Such jargon I can *not* excughes!"

Yours, etc.,

"STANLEY."

Psychotherapy

To the Editor of the GAZETTE

SIR,—When a bystander intrudes into what is apparently a private fight he is usually rewarded by being attacked by both combatants. At the risk of such an unfortunate reception I should like to suggest that both Dr. Hurst and Dr. Neustatter are right. The opinion which Dr. Hurst has put forward is one which is usually held by the neurologist or general physician. It is held because the type of neurosis which he sees is in the early stages, and will usually respond to a little strong suggestion accompanied by any necessary alteration of the environment. It is, in my experience, the cases which are not responsive—usually after passing through the hands of the osteopath or Christian Scientist—that drift on to the psychotherapist. Such cases are chronic hysterias, phobias, obsessive-compulsives, prepsychotics, and so on.

It would be interesting to know how many obsessionals of some years' standing Dr. Hurst has seen cured, at one sitting, by suggestion. The more cases approximate to the psychotic the less is it possible to produce a rapid cure by suggestive methods. I have no doubt that the type of case which Dr. Neustatter sees is more chronic and less easily cured. It is thus easy to see how the different points of view arise. The psychotherapist usually keeps his insight by working at Out-Patients, where he sees early cases and, owing to lack of time, he is unable to use exploratory methods. Unfortunately, the general physician rarely sees the chronic cases, since they soon get tired of medical treatment and drift out of his ken.

Yours, etc.,

CLIFFORD ALLEN.

91*a*, Harley Street, W.

Panel Prescribing

To the Editor of the GAZETTE

SIR,—I have never been a panel doctor, but have deputised for many without getting them into trouble, so thought that I was up to most of the wiles of panel committees. How-

ever, not long ago I was working for a young doctor who was ill, and he complained most bitterly of his treatment. I do not remember it all, but his life seemed to be that of the proverbial toad under the harrow. His drug bill was not excessive, nor was his number of prescriptions, but the average cost of each individual one was over the general average, and they made trouble over that.

A man stopped me outside the surgery and asked me to write a prescription for him, and when I asked what it was for he said it was immaterial, as he only wanted it to hand to the chemist to see if he could catch him out. If the chemist got into trouble over the one I gave him he deserved it.

In another place I had a weird neighbour whom the committee wanted to surcharge £145. The chemist said he was not surprised, as one of his people had had a pound of malt and oil per week indefinitely. At my next visit I heard that he had squared the surcharge for ten pounds.

Yours, etc.,

"LOCUM TENENS."

General Practice

To the Editor of the GAZETTE

SIR,—The importance of General Practice is being recognised.

Perhaps some embryo G.P. would advise of appropriate treatment for sender of the enclosed.

Yours, etc.,

"ONCE AN H.-S."

Herefordshire.

* * *

Woodhouse.

To Dr.,

Water not on times back pains on times sore on times in the passage at night gets out oftener in night round sides under arms sometimes every now and again two or 3 days sore feel head dizzy water smell feel ert sick on times wind nasty taste Mrs. Tompkins not quite so much water irriteate pass.

Phelm on chest.

"Ad Solem Orientem"

To the Editor of the GAZETTE

SIR,—Having much enjoyed the article entitled "Ad Solem Orientem" in the last issue of the *Gazette*, I feel that it would be unfair to let the author's strictures on pleasure cruising go unanswered, as it has formed a method whereby a hard-pressed Mercantile Marine, which we understand has safely carried "Stanley" to India—and back—several times, has been enabled to keep many of its ships in commission, and so minimise its otherwise very heavy losses. During the last four years there has been a tremendous increase in the number of ships used for cruising, a large number being old boats so organised as to make minimum fares possible; such ships are naturally rather full of passengers, who in the main are drawn from those sections of society who look for a happy—if noisy—holiday. In addition to these older ships, which are gradually being withdrawn from service, certain of the larger companies maintain modern and completely up-to-date liners for cruising only, and are sufficiently jealous of their reputation to limit the passenger list most rigidly on each voyage. By this means there is ample room in the ship for all, and those who wish to take their holiday quietly can do so; the fact that one is completely cut off from the claims of a busy practice is in itself a boon, whilst the facilities for inspection of places abroad are such as to make sightseeing a pleasure instead of a wearisome pilgrimage.

I, personally, can recall many centres of interest and beauty, which I have seen in this way, and now have first-hand information of many holiday places which I know will repay a long stay.

In respect of cruise tourists' behaviour, "Stanley," as a Services man, may very naturally be worried about prestige, but he need have little cause for apprehension, as the main bulk of pleasure cruisers do not percolate much farther than the Western Mediterranean, where the ports of call are largely cosmopolitan in nature, and where the revenue derived from cruise passengers proves more than a sufficient recompense for any affront to the susceptibilities of the inhabitants.

From time to time one does see Britishers, both cruising and otherwise, guilty of vulgar and unfortunate behaviour whilst abroad, but if this is the only disadvantage of belonging to a conutry where dictators and regimentation of private behaviour are unknown, we can be well content.

Yours, etc.,

ROBERT CUTLER.

8, Lower Sloane Street,
S.W.1.

Sport

Rugby

Guy's v. Liverpool

A MAGNIFICENT struggle was seen at Honor Oak Park on Saturday, December 14th, when for the first time in their history Guy's entertained Liverpool (one of the oldest clubs in the country). The result, a pointless draw, was a fitting end to a game in which the defences of both sides were better than the attack.

A feature of the match was the relentless tackling by both teams, which limited the opportunities, but, although the visitors in the first half and then Guy's in the second half had good scoring chances, neither team had anybody to finish off the movements.

The Liverpool forwards set the pace and gave a fine display of following-up. They saw that their backs had plenty of the ball, and in Hay they had a scrum-half who had a fine understanding with his partner.

In the first half their threes carried out several perfect movements, and by clever running and interchanging of positions Johnston and Thornton caused the Hospital defence many anxious moments.

After the interval the tables were reversed, and Guy's gave their opponents a most harassing time, and had they flung the ball about a bit more there is no doubt that a score would have resulted. During this period the forwards rose to the occasion and never spared themselves a second. Ably led by Fletcher, Darke and Davies, they kept Liverpool in their own half, and only a cast-iron defence kept them out.

Save for patches of brilliance by Steytler and Allen, the back division was very disjointed and never looked like scoring. Dick, Wright and Stanyon-Jaques were unable to take their places in the side, and their absence meant a tremendous difference to the attacking powers of the Hospital.

Chapman, at scrum-half, did not have a happy match, as Hay smothered him whenever he had the ball, with the result that his passes to Allen suffered in consequence.

Although Guy's got their fair share of the ball in the set scrums, they did not heel as quickly as they might, and it appeared that the ball was held up too long in the second row.

From the kick-off Liverpool got into their stride and attacked from the start. A series of forward rushes in which Godwin, Sutherland and Knowles were prominent carried play to the Hospital's 25. Following several scrums, Bowman and Hay made many openings for the three-quarters, and Douglas had all his time occupied in stopping Johnston, who was always a danger when he had the ball. Halamandres was sound at full-back, and on one occasion was too quick for Thornton and Forgan when the ball was kicked over the line.

Guy's made ground following a good kick to touch by Allen and then Kark, Davies and Fletcher led a counter-attack, but Thornton and Smith got back in time to save their line. On several occasions the visitors' full-back drove Guy's back with excellent kicks to touch. The Liverpool backs were now playing with plenty of confidence, and several of their handling movements were excellent, but they failed to penetrate the Hospital defence, which was superb. A great effort by Godwin, who led his forwards in a splendid burst, looked particularly dangerous, but, although the Hospital gave away a penalty in a favourable position, the visitors failed to score, and Halamandres cleared his lines with ease.

So far Guy's three-quarters had not been very impressive, and therefore it was not surprising to find the forwards keeping the ball close.

After the interval Guy's combined much better, and were soon attacking Liverpool's line. With Darke, Fletcher and Hopkins in the foreground, they kept up a sustained attack, and only some first-class tackling kept them at bay. A fine run by Steytler, following another by Allen, led to a splendid movement by the Hospital threes, and Rees raced down the wing only to be held up near the corner flag as the result of a glorious tackle by Thornton.

In the excitement which followed, Guy's were awarded two penalties for off-side, but Kark was unable to land the goals from difficult positions.

After both sides had attacked in turn, Steytler and Rees made another great effort for Guy's, but they were outnumbered and grassed before crossing the 25 line. Again had Guy's flung the ball about a bit more a score would have resulted, but they relied too much on the kick and follow-up, and Thornton, at full-back, playing with plenty of confidence, fielded the ball on each occasion, and drove the Hospital back with raking and accurate kicks, which never failed to find touch.

Team.—C. Halamandres; D. M. Douglas, I. McD. Stewart, J. van A. Steytler, G. J. F. Rees; R. D. Allen, D. I. Chapman; M. R. Kark, P. K. Hopkins, P. H. Crampton, L. R. Davies, E. B. French, P. Fletcher, R. O. Yerbury, C. S. Darke (Captain).

Guy's v. United Services (Portsmouth)

AT Honor Oak Park on Wednesday, December 18th, Guy's obtained a well-deserved success when they defeated the Services in a rousing game by 4 placed goals and 2 tries (26 points) to a placed goal and 4 tries (17 points).

Weakened by the calls of county matches, the Services were unable to field their full side, and, on the other hand, Guy's lacked the services of Wright, Fletcher and Stanyon-Jaques.

Considering the heavy state of the ground, the match reached a very high standard, and the Hospital backs in particular carried out some excellent passing movements at top speed. R. C. S. Dick, Steytler and Allen proved a menacing triangle, and the Services found it extremely difficult to check this trio once they got moving.

With both Stanyon-Jaques and Chapman injured, the Hospital were in a dilemma for a scrum-half, but V. H. Bowles, who had not played this season, turned out and, considering that he had not been in training, put up a creditable performance.

The Services, who arrived a man short, completed their side with Milton, the Hospital reserve wing, and found him a very useful substitute.

Guy's opened the scoring in the first few minutes when Dick and van Steytler cut through and Douglas was up to take the final pass, to score a try which Kark converted.

A riot of scoring followed, and before half-time thirty-four points had been registered. A rousing forward rush in which Aylem, Brockman and Walker were outstanding, drove the Hospital back, and from a scrum ten yards out Harvey zig-zagged his way all over the field, to score a fine try which Browne converted.

The Services took the lead when the same player broke through the centre with Aylem and Armstrong in close support; the movement ended in Milton crossing in the corner.

Guy's quickly regained the lead when Dick flashed between the two opposing centres, cross-kicked, and was up to touch down from his own kick, Kark adding the goal points.

The game continued at a fast pace, and Guy's went further ahead when Dick evaded some weak tackling and Sharp was up to complete a run by Darke, Kark kicking another easy goal.

The Hospital were playing at top speed, and good work by Allen and Steytler gave Dick another opportunity to race through the defence and score a try behind the posts for Kark to kick his fourth goal.

The visitors rallied well, and in quick succession scored twice through Brockman. On the first occasion Davey tackled Rees in possession behind his goal line, and later a short passing movement between the forwards enabled Walker to give the final pass.

The second half was evenly contested, but the Services were the first to score when Kyrke managed to force his way over in the corner, but as the game progressed Guy's proved superior, and further unconverted tries were scored by Steytler and Rees.

Team.—C. Halamandres; D. M. Douglas, R. C. S. Dick, J. van A. Steytler, G. F. Rees; R. D. Allen, V. H. Bowles; M. R. Kark, F. K. Hopkins, P. H. Crampton, E. R. Davies, E. B. French, C. S. Darke (Captain), R. O. Yerbury, E. C. Sharp.

Hospital Information, etc.

Notices

THE RESIDENTS' BALL

Once again we should like to remind our readers that the Residents' Ball will be held at Grosvenor House on Friday, March 13th, 1936.

Mrs. Ryffel has kindly consented to act as hostess and Marius B. Winter's full broadcasting band has been engaged.

All Guy's men, past and present, are cordially invited to bring as many friends as they wish.

Tickets may be had on application to the Ball Secretary, The College, Guy's Hospital.

EAST ANGLIAN GUY'S MEN

It is the intention of Guy's men in East Anglia to hold a Dinner at Cambridge early in March with Dr. J. Ryle as the Guest of Honour. The Dinner will not be limited to Guy's men from this locality only. Further details will be announced later.

E. BIDDLE.

East Suffolk and Ipswich Hospital.

Changes of Address

Dr. J. Barlow-Schofield, 23, Bass Street, Derby.

Gavin Thurston, 54, Elms Road, Clapham Common, S.W.4. *Macaulay* 4787.

Marriages

SCHOFIELD—BATT.—Dr. J. Barlow-Schofield to Kathleen Mary Batt on September 25th, 1935, at St. Clement's Church, Chorlton-cum-Hardy, Manchester.

Birth

GLAZEBROOK.—To Constance, wife of George E. Glazebrook, L.D.S., R.C.S.Eng., at Salisbury House, Hammersmith Road, W.6, on 19th December, 1935—a daughter (Carol Margaret).

EDS. { P. W. C. / M. A. P.

GUY'S HOSPITAL GAZETTE

A Journal of Medicine, Surgery, Dentistry and Hospital News.

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PASSIM

WE publish a letter from an old Guy's man, the vituperative tone of which may, we hope, scare the authorities into taking action over what has long been an open scandal. The appearance of and accommodation in the Clubrooms of the College is a subject as threadbare as the sofas in the smoking-room. There cannot be any doubt that the College should be rebuilt and expanded, and everyone has recognised this for many years. There is equally little doubt that this will not be done, and, indeed, the difficulties are very great. But we cordially associate ourselves with our correspondent in his view that much could be done to render the present conditions less intolerable to those who are the victims, and less repellent to prospective newcomers.

" An organism reacts to its environment," says our correspondent, and we feel that here he has touched the root of the matter. It is the fact that we have grown used to the sty that causes the apathy with which we view the present conditions. We well remember, however, the impression which the College made upon us on our first arrival It is impossible for the newcomer to fail to view the smoking-room without repugnance, and the appearance and architecture of the semi-basement cafeteria, which we have already described as being in the neo-lavatorial style, will enable the newcomer intuitively to understand why such a breeding ground of consumption should be referred to as the "Spit."

So much for the appearance; even if this were improved there still remains the inadequacy of the accommodation. A letter appeared in these columns a little over a year ago, in which it was suggested that the preposterous overcrowding of the dining-room might be relieved by the construction of an upper storey. The Staff, who have their own tables reserved for them by long-standing convention, and who, in any case, do not feed here under compulsion, can have no realisation of the length of time which it takes to get a seat. The tedium is often so insufferable as to make it worth while to go without lunch. More and more people are being driven to the local hostelry, where the overcrowding is almost equally great. At the " Ship and Shovel " we cannot feel that there is any moral obligation on the proprietors to provide room enough for other than the regulars; with the College there is, on the other hand, every such obligation. Even if there is a prospect of rebuilding the College in ten years (and we have never heard of such a prospect) the situation is still pressing enough to warrant such an extension being made. Nor is it only in the dining accommodation that the congestion is felt; those whose ways take them to the basement at almost any time will have seen the pathetic need for the services of a different kind of architectural specialist to add to the limited facilities that exist there at the moment. We feel that the present state of affairs can no longer be ignored, and that the apathy of members of the Hospital should give place to a chorus of lively protests. Let's stir 'em up.

WE explain, for the benefit of subscribers outside the Hospital, the method of admitting a patient into Nuffield House. As the treatment of every patient must be under the care of a doctor of consultant rank, all applications for admission must be made by a consultant.

There is already a brisk demand for rooms, and, although completed only a month ago, all floors are now in use, and there are at present sixty-one patients under treatment in Nuffield House.

MESSRS. ASH & CO. have again this year very generously provided the Hospital, free of charge, with Christmas Cards. The sale of these cards has resulted in a donation of £86 3*s.* 10*d.* to the Hospital funds.

THE Residents' Play will be held in the Physiological Theatre on the evenings Tuesday the 11th of February to Friday the 14th inclusive. Applications for tickets should be made to J. E. Elliott, Hon. Secretary of the Residents, by February 1st.

WE congratulate E. S. Nicholson on his selection to play for England in the forthcoming Rugby football international against Wales, and R. C. S. Dick on being selected to play for Scotland against Ireland.

Applications for tickets for the International Rugby Match between England and Scotland at Twickenham on Saturday, March 21st, should be made to R. C. S. Dick, Hon. Secretary of the Guy's Hospital Rugby Football Club, not later than Wednesday, 29th January. Tickets in the Stand are 10*s*. ringside seats are 6*s*., or for playing members, 5*s*.

WE congratulate the following on their election to Clinical: C. S. Darke, B. W. Hunt, D. Freebody, M. A. Partridge, H. R. S. Harley, G. N. Wright.

A CORRESPONDENT has drawn our attention to a letter, which we publish elsewhere, from a copy of the *Lancet* of 1840. It concerns a dispute which arose at Guy's through a student wearing his hat in a ward. Who would now wear his hat on a round, in these decadent days when few of us wear hats at all? This curious quarrel stimulated in us a gentle melancholy as we contemplated the decline of the hat, and in praise of hats we would say a word. It is still a British custom that we should boast of the delightful inconsistencies and the splendid uselessness of our ceremonial institutions, such institutions as trials by the House of Lords, such ceremonies as beating the bounds or loosing the cuckoo at Heffel Fair. But of all the institutions that affect our daily life, the wearing of hats is surely among the most magnificently useless. What can be the function of the hat, save to afford an occasional protection from the starlings in the Park? Everyone must at some time or another have felt dissatisfaction with the reason alleged for the miller's style in headgear. "Yes, but does he really wear it to keep his head warm?" is a question that must have tripped off the tongue of every earnest student of enigmas. The answer is hopelessly inadequate, like that to the problem: "Why did Gladstone wear yellow braces?" And we are left with the question: Is the hat of any use at all?

Having penetrated beyond the reasoning of that trifling riddle, we view hats, beavers, bowlers, billycocks, panama hats and pot hats, Homburg hats and opera hats, straw hats and cocked hats, and with the whole pageantry of headgear before us, we wonder what meaning has the hat. We live in a scientific age when inventions insist on their applications, and utility is the standard; and we are in danger of losing such heritage of elegance as our ancestors have handed us. With the encroachment of utility our whole horizon is changed. Who now could indulge in the riotous extravagance of the Crystal Palace, who could design the Pavilion at Brighton, or do more than feebly simulate the Palladian elegance of Carlton Gardens? From the glories of the carriage, with its prodigal display of footmen's fatted calves, we have descended to the plain economics of the motor. As we have lost the feeling for all these things, so are we in danger of losing our appreciation of the hat. The hat has one great significance: it is an outlet for self-expression; not merely the manner of its wearing, the sober practitioner who wears his on the very middle of his head, the roué who wears his with a jaunty tilt, but the hat itself will display the man. What a world of difference there is between the black trilby hat with braid and the soft black hat without! John Gilpin was a citizen of credit and renown, and one might have guessed it from the fact that he wore "a hat not much the worse for wear." A hat has been the last link between Ould Ireland and Philadelphia, as we know from the famous emigrant's song, "The hat me father wore":—

"It's ould, but it's beautiful,
The finest ever seen,
And worn for more than ninety years
In that little isle of green."

Was not the miller's white hat perhaps a symbol of the virginal purity of his bread, just as the judge's black cap symbolises the awful gravity of the moment, and the cardinal's red hat suggests something of the pomp and magnificence of ritual? In these drab days when our teachers and preachers can even sometimes be seen (O t., O m.) wearing Stetsons with morning tails, let us cling to our hats, let us not go hatless. Let us have a crusade for better hats, and as an expression of our faith let us, as in 1840, wear them in the wards.

Mr. F. P. Whitbread—An Appreciation

THROUGHOUT his period of office Mr. Whitbread has taken an especially keen and active interest in the welfare of the Medical and Dental Schools. As Chairman of the Governors he has kept himself constantly informed of the progress of the Schools, and he has made himself familiar with the details of every scheme which has been undertaken for their improvement. The knowledge of his whole-hearted support has proved of the greatest encouragement and help in every new undertaking.

At Guy's we don't have many ceremonial occasions, and in the case of the Schools the opening of the Winter Session is the solitary annual function. No Opening Address has been complete without Mr. Whitbread in the Chair,

and he has never failed to find the time to preside. It is good to know that he has derived the greatest pleasure from these rare occasions which have given him the opportunity of addressing the students. Always he has felt himself *en rapport* with his audience, and he has enjoyed himself as much as he has entertained them, for his dry humour has invariably met with an instantaneous response and his speeches have always been punctuated with examples of wit which have brought forth spontaneous bursts of laughter and appreciation.

In addition, Mr. Whitbread has taken the keenest interest in Hospital athletics, and particularly in the doings of the Rugby Fifteen. Cup-ties, especially final cup-ties, have found him braving the bitter winds which blow straight into the Committee Box at Richmond and chill the enthusiasm of younger men. Days of victory sent him away happy and contented; days of defeat were quickly forgotten in anticipation of something better next year.

The news of his retirement was received with general regret, and Staff and Students alike offer him their appreciative thanks for all that he has done for the Schools during his Treasurership.

Photo by Bassano, Dover Street

FRANCIS PELHAM WHITBREAD

We hope to publish an appreciation of the work of Mr. Whitbread for the Hospital, apart from the Medical School, in our next number.

The Symptoms and Signs of Peripheral Vascular Disease

A Clinical Lecture delivered at Guy's Hospital by R. T. Grant, Esq., M.D., F.R.S.

GENTLEMEN,—To-day I wish to discuss with you the main symptoms and signs associated with disease of the peripheral vessels. I shall not describe the clinical pictures and the differential diagnosis of the various diseases by which the vessels may be affected; I wish rather to treat the subject from a more general point of view, to go over with you the chief phenomena presented by these diseases, to tell you, so far as I can, how they are produced and what conclusions may be drawn from them as to the state of the vessels. We shall consider such things as the following :—

1. The symptoms of numbness and pain.
2. Alterations in skin colour, trophic changes, ulceration.
3. Absence or presence of vascular pulsation.
4. Temperature changes.

As we go along we shall also discuss the various tests that are used to determine the state of the vessels.

NUMBNESS AND PAIN

About the symptoms of numbness and pain I can't say very much, for the state of our knowledge does not allow of a connected account of the nervous disturbances met with in vascular disease. There are, however, a few points of interest and practical importance.

Numbness and tingling are two common complaints from patients suffering from vascular disease of the extremities. Now, it has been shown, both in normal subjects and in these patients themselves that artificially obstructing the circulation to a limb reproduces these nervous disturbances. If the circulation to a limb is arrested, the limb, after a time, ceases to function owing to paralysis of its nerves. It is found that the nervous impairment follows a definite course. Loss of tactile sense and of the sense of position occurs early; it begins at the periphery and spreads centrally. Appreciation of pain, heat and cold is maintained longer than is the tactile sense. Motor paralysis also starts, in general, at the periphery and spreads centrally, but the extensors are involved before the flexors. It is a long time before the pilomotor nerves are affected. These changes and their order of occurrence are very similar to those of peripheral neuritis, and, in fact, it has been shown that the nervous disturbances associated with obstructed circulation are due to ischæmia of the nerve trunks themselves. So that these phenomena may be interpreted as the signs of nerve injury, produced in various ways and not necessarily due to obstructed circulation. When due to obstructed circulation, such disturbances are found, for example, in Raynaud's disease and in embolic blocking of the main vessels to a limb. Just a word about tingling. Experimentally, tingling occurs when the obstructed circulation is released and seems to be due to a certain state of recovery in the nerve trunks and is referred to the periphery. Tingling also occurs clinically, for example, when the circulation is returning to the fingers as a Raynaud attack is passing off.

As regards pain, various types are described—dull aching, burning, stabbing and cramp-like pains. We know very little about these pains and how they arise, whether in the bones, joints or vessels themselves, and, with the exception of two special pains (burning pain and the pain of intermittent claudication), I need say no more about them.

Burning pain is most commonly felt in the feet, and is found in such conditions as thromboangeitis, Raynaud's disease and chilblains. This pain often comes in attacks; it is aggravated by warmth, dependency and friction; it is relieved by cold, rest and the horizontal position. Recent investigations show that this pain is not peculiar to one special disease, but that it is due to a hypersensitive state of the nerve endings in skin that has been injured in any way. The skin, of course, can be injured in many ways other than by deficient circulation. So that when a patient complains of burning pain, this cannot be attributed to circulatory disturbance without further evidence, just as the symptoms of numbness and tingling require further investigation.

A word about intermittent claudication. The pain of intermittent claudication is a continuous pain brought on only by exercise, usually in the legs on walking. If the exercise is persisted in, the pain becomes increasingly severe, and finally forces the patient to come to rest. On resting, the pain soon disappears, only to reappear after exercise is resumed. The importance of this well-defined type of pain is that it is a clear sign, and almost the only sign we have, of deficient circulation in the working muscles. The amount of exercise required to produce the pain is in most cases remarkably constant for each case, and gives a rough indication of the degree of the circulatory

deficiency. The deficiency is usually due to structural disease of the vessels; in some cases it may be due to severe anæmia; it is doubtful if it is ever produced by spasm alone, in the absence of structural disease.

COLOUR CHANGES, ETC.

Apart from skin pigmentation, the most important element in skin colour is that due to its blood content. In connection with this blood colour of the skin, two points have to be borne in mind. The first is the depth of colour, whether the skin is deeply coloured or pale, and, secondly, the actual tint itself, whether red or blue (cyanosed). The depth of colour, due to the amount of blood contained in the minute vessels, depends chiefly on the state of filling of these vessels. It is influenced, of course, also by the state of the blood, anæmia tending to give pallor and polycythæmia increased depth of colour, through dilution and concentration respectively of the hæmoglobin pigments. In the absence of blood changes, pallor of the skin means poor filling of the minute vessels. This emptiness of the minute vessels may be produced in two ways. It may be due to the active contraction of these vessels, for example in the white reaction to stroking the skin, in Bier's spots, sometimes in the white fingers of Raynaud's disease, after the injection of constrictor substances or in states of sympathetic nerve stimulation. It may result also from secondary contraction of the minute vessels, these being emptied by the blood being massaged out of the part by movement or drained out of it by gravity, inflow of blood being prevented or reduced by spasmodic or organic obstruction of the arteries or by a fall of blood pressure. For example, the pallor of the face in a fainting attack is due to the blood draining out of the skin by gravity and to a fall of blood pressure. Again, in structural disease of the limb arteries, the skin may become very pale when the limb is raised and held for a short time some distance above the level of the heart.

Increased depth of colour is due to a dilatation of the minute vessels, either active or passive. It is produced, for example, by local warmth, by raising body temperature and so relaxing vasomotor tone, by venous obstruction, dilator drugs, such as histamine, and also by local injury. Most commonly in diseases of the vessels it is due to injury of the skin, such as is produced by impaired blood supply, long-continued cold and possibly by low-grade inflammation. It is known that injury of any kind applied to the skin causes dilatation of the minute vessels, and this dilatation may persist long after the cause of the injury has been removed—for example, after X-ray burns. Vessels so injured are often found to be irresponsive to stimuli which normally cause them to constrict.

I will refer now to a test that is frequently used as an index of skin blood flow, but which is an unsafe test. The test is to expel blood from the skin by pressure on it, so as to blanch the skin, and from the rate at which colour returns to the skin conclusions are drawn as to the rate of blood flow through the skin. The test is unsafe, because skin colour depends chiefly on the state of the venules and these vessels anastomose freely with each other; the rate at which blood returns to these when emptied depends more on the blood pressure in the venous plexus than on the arterial pressure. Blood can return quickly to skin so blanched even though blood flow is at a standstill. You have only first to congest a limb and then stop the blood flow through it with a sphygmomanometer armlet and try this test to see how quickly colour returns in spite of the absence of blood flow through the limb.

Take now the second point about skin colour—the actual tint of the skin, its redness or blueness. Blueness of the skin I have considered fully in the lecture on cyanosis, and I need only remind you here that, provided the arterial blood is normal, cyanosis of an extremity is due to deficiency of blood flow relative to the oxygen requirements of the skin. Cyanosis in cold skin is a normal phenomenon, for cold constricts the arteries and the arterioles. When a limb is thoroughly warmed, normally these vessels dilate, and even spasmodic constriction is relieved, so that if cyanosis persists, this is strong evidence that the arteries are not capable of dilating and are structurally diseased.

In connection with skin colour, it is convenient here to discuss the reactive hyperæmia test. When the circulation to a normal limb is arrested for even a short time and then released, a bright flush spreads at once through the skin. This flush is due to a wide dilatation of all the vessels in the occluded area and is called reactive hyperæmia. It is found that the rapidity with which this flush appears in any part of the limb depends on the patency of the vessels supplying that part. Moreover, it serves to show that the vessels are organically obstructed for the test, when properly applied, relieves entirely any spasm of the vessels. It is important that the test should be applied in a standard way. The patient should be warm and the limb immersed in warm water at about 35° C. for ten minutes. The limb is then elevated for a few seconds to drain the blood out of it and, while elevated, the blood flow is quickly arrested by rapidly raising the pressure in a sphygmomanometer armlet to above systolic pressure. It

is important to attend to these details for, if the skin vessels are congested during the occlusion, this tends to prevent the rapid re-establishment of the blood flow on releasing the circulation. The arrest of the circulation is maintained for five minutes, the limb remaining immersed in the warm water. Just before releasing the circulation the limb is removed from the water, dried, laid horizontally and observed in a good light. Normally, on release, a bright arterial flush spreads at once over the skin, reaching the tips of the digits in less than five seconds. It reaches its maximum intensity in about fifteen seconds and then fades quickly. In the presence of structural disease of the vessels the flush spreads slowly and in patches; it may not appear, for example, in the digits until a minute or more after the release of occlusion, and in such cases the flush is usually not of a bright arterial tint, but is rather cyanotic and lasts for a long time. So far as is known, the only condition causing this delay is structural disease of the vessels, for, as I have said, this test overcomes spasm. Remember, however, that it is only a test of the skin vessels and gives no certain indication as to the state of the deeper-lying vessels. The response to this test may be normal, although the patient complains of intermittent claudication in the same limb, showing that while the blood supply to the skin is adequate, that to the muscles is grossly deficient. The reactive hyperæmia test also gives an indication of the lowest level for an amputation that is consistent with survival of the skin flaps, but its details in this respect are not yet worked out. It is suggested, for example, that if a bright flush appears in the heel within fifteen seconds of release, then amputation just above the ankle can be safely carried out.

A word now about the so-called "trophic" changes in the extremities. It is now becoming recognised that many of the trophic or nutritional changes formerly attributed to interference with the nerves are in reality due to deficient blood supply. I mean such changes as dulling and ridging of the nails, slow growth of the hair and nails, wasting of the part, thinning and smoothing of the skin. But although these changes are to be attributed to deficient circulation, they do not necessarily indicate disease of the vessels. The deficient circulation may be due, secondarily, to inactivity of the extremity caused by involvement of the nerves by disease or injury or also in hysteria, the vessels themselves being normal. Again, ulceration of the digits may occur apart from vascular disease; it may result from unnoticed injury to an insensitive part; it also occurs in some low-grade inflammations. Gangrene, however, implies a prolonged and complete interruption of the blood supply to the affected part.

ABSENCE OR PRESENCE OF PULSATION

Absence of palpable pulsation in a large artery usually, but not always, means obstructive disease of that vessel, but it is important to note the conditions under which pulsation is not felt. Thus, in some cases of Raynaud's disease and even in some normal subjects, pulsation is not felt in peripheral arteries when the limb is cold, through constriction of its vessels; pulsation becomes palpable when the limb is warmed, and, best of all, when the patient's body is also well warmed, to ensure as much relaxation of vasomotor tone as possible. Exceptionally, blood flow to a limb may be almost normal although no pulsation is to be felt in its vessels, as in the legs of subjects suffering from coarctation of the aorta. These cases, however, are rare, and it may be said that absence of palpable pulsation in a large artery when the patient and limb are warm is a sure sign of gross structural disease in that vessel. It should be remembered, on the other hand, that while arteries may pulsate, yet circulation to the part may be grossly deficient, owing to disease to smaller and more peripheral vessels.

A useful instrument for obtaining a rough measure of pulsation is the Pachon oscillometer. In general, this machine confirms pulsation, but it will also record pulsation in places, such as the forearm and leg, where pulsation is not perceptible to the fingers.

In dealing with pulsation, I may mention capillary pulsation. This sign, which was formerly thought to be associated only with aortic regurgitation, is now known to occur normally in skin when the smaller arteries and arterioles are dilated and pulse pressure is adequate.

In most normal subjects it is rendered visible in skin that has been well warmed in water at about 45° C., by pressing lightly on it with a glass slide. When present, it is a clear sign that there is no material defect of the small arteries and arterioles supplying the part. Its absence, however, does not necessarily mean blocking of the vessels, for it is sometimes not easily obtained in some normal subjects.

TEMPERATURE CHANGES

One of the most important indices that we have of the blood flow through a limb is the temperature of the skin. The difference between the temperature of the skin surface and that of the surrounding air is governed by the rate of blood flow through

the skin. You all know how your own skin varies in temperature; it is now hot and now cold, so that before you can use skin temperature as a sign of vascular disease, you must know the conditions governing blood flow through the skin. It is largely through variations of skin blood flow that the body temperature is regulated, and the body temperature, through the sympathetic nerves, is the chief controlling factor of the cutaneous circulation. When body temperature is raised, the cutaneous vessels dilate, and the skin becomes flushed and hot, the temperature even in the digits coming to lie only 2° or 3° C. below rectal temperature. When body temperature is lowered, the skin vessels are contracted, the skin becomes pale and cold, its temperature falling to that of the room. A second factor controlling skin circulation is the temperature of the surrounding air, warmth dilates and cold constricts the cutaneous vessels. It is to be remembered, however, that the temperature of the surrounding air only exerts its full effect when the body is normally warm. For, if the body is either hot or cold, the temperature of the air has relatively little effect on the state of the skin vessels. But in ordinary circumstances, when the body is neither hot nor cold, the peripheral vessels are constricted and the extremities are cool when the room air is cool; when the air is warm, the cutaneous vessels dilate and the extremities are warm. So you see you cannot use coldness of the extremities as a sign of vascular disease unless you consider the conditions under which it is displayed. Coldness may be due not only to structural disease of the arteries or to spasm; it may be the normal response to cold.

Now, it follows from what I have been saying that the capacity of the skin vessels to dilate can be tested by observing skin temperature when sympathetic vasomotor tone is removed. This can be done in various ways, but, whatever way is used, the best results are obtained if, to start with, vasomotor tone is high and room air is cold. When sympathetic tone is removed, the skin of the extremities in normal subjects quickly becomes warm. The rise of temperature almost always begins and is most rapid in the tips of the digits, due to the large number of arteriovenous anastomoses in that situation, and it follows more slowly in the more proximal parts of the limb. The most convenient way of removing vasomotor tone is by warming the body. This is done by encasing the patient's body in a warm chamber, by hot-water bottles, or, best of all, by immersing either arms or legs in water as hot as can be borne, about 45° C. The last method very quickly raises body temperature, and usually after fifteen minutes the skin flushes and begins to sweat freely. Other ways of removing vasomotor tone are by nerve block with a local anæsthetic, by spinal anæsthesia for the lower limbs, by injecting a local anæsthetic around the corresponding sympathetic ganglia, and, what I have mentioned before, by entirely occluding the circulation to a limb and so provoking reactive hyperæmia. Except for reactive hyperæmia, these methods are not equally efficacious in both the upper and lower limbs. Thus, some cases of Raynaud's disease, examined when the vessels are in spasm, show no rise of temperature in the little finger when the ulnar nerve is blocked with novocaine, while these same patients show a full and normal dilator response to body warming. In the lower limbs, on the other hand, there are some cases of acrocyanosis, of spasm or of structural disease, and even some normal subjects in whom the feet fail to warm up when the body is warmed, though they do warm fully when the corresponding nerves are blocked.

These tests, then, are very valuable for showing if the vessels have the capacity to dilate. If dilatation is imperfect, the temperature reached by the skin will show this, and will indicate the degree to which the vessels are narrowed by structural disease of their walls. The rise of skin temperature can easily be appreciated by the hand, but for accurate observations the best and most convenient method is to follow the course of skin temperature thermo-electrically, small copper-constantan junctions being attached to the parts to be observed.

These tests also give an indication for treatment. Thus, for example, if a skin lesion is present in a limb that is usually cold, and if the limb becomes warm in these tests, then it is reasonable to expect an improvement of the lesion to result from the removal of sympathetic tone. Temporarily, this can be done by keeping the patient warm, and more permanently by the operation of sympathectomy.

Guy's Hospital Gazette

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The Editor will, at all times be glad to consider articles or sketches, provided that they are accompanied by the writer's name and address, not necessarily for publication. Authors who desire reprints of their papers should make their own arrangements with the Printers when they return their proofs. All contributions to be addressed to *The Editor*, who does not accept responsibility for the views expressed by contributors.

Some Common Drug Eruptions

By L. Forman, Esq., M.D., M.R.C.P.

THERE is a very large number of drugs which are capable of producing skin changes in certain individuals, but I will deal only with those in common use which give reactions which will have to be recognised in practice.

A drug may provoke a rash after only one dose, where the idiosyncrasy is marked, or only after the administration has been prolonged, allowing an adequate concentration in the tissues.

Naturally, where there is functional or organic disease of the excretory organs accumulation of the drug will more readily result and will favour the appearance of a cutaneous reaction in predisposed individuals. For example, iodide and bromide eruptions are seen when there is heart failure; medinal and luminal erythemata with perhaps general symptoms, with renal disease; and the general dermatitis due to the administration of the heavy metals, bismuth, gold and arsenic, in old age when there is some degree of renal and associated cardio-vascular deficiency.

The skin can only react in certain ways: with an erythema plus the formation of eczematous areas, with blisters, or the production of granulomata. Many drugs, unrelated chemically, may therefore produce a similar morphological appearance, *e.g.*, bullæ on the limbs with luminal or iodide.

However, some drug eruptions are so characteristic that a diagnosis can be made at a glance.

Iodides are widely administered and frequently give rise to cutaneous reactions. The commonest type is "iodide acne" on the face and chest, usually seen after the drug has been given for some time. The lesions are follicular papules, deep red and surmounted by a pustule. The differential diagnosis between the common acne of adolescence occurring with a greasy seborrhœic skin, and iodide acne, may be of some difficulty. However, the history of the eruption appearing for the first time during the administration of the drug, the absence of blackheads and the rather violent inflammatory appearance of the follicular papules, help in the differentiation between the two conditions. It is interesting to note that many dermatologists have emphasised that ordinary acne is made more pronounced by the ingestion of iodides, and have given instances of relapse having occurred when proprietary iodised table salts were taken.

The bullous eruptions produced by iodides are more dramatic and can be the result of a single dose of iodide, *e.g.*, 20 or 30 grs. A good example of this was seen in one of Dr. Hurst's patients, a middle-aged woman after a day's treatment with an iodide mixture. She developed on her elbows and legs numerous clear flaccid blisters about the size of a shilling.

Similar bullæ may make their appearance around the neck and on the ears.

A rarer skin example of intolerance to iodides is the appearance of granulomata, usually on the shins. The granulomata may arise from the base of a ruptured vesicle or blister, and in the early stages are smooth and firm, of a blueish-red tint. They may attain the size of a five-shilling piece and project well up from the surface of the skin, while covered by a crust which, when removed, reveals a mammillated surface with numerous points of pus.

In the differential diagnosis a granuloma due to the staphylococcus, or a gummatous lesion, particularly if sloughing occurs, or a malignant change such as a sarcoma, have to be considered. Where there are extensive iodide eruptions there are usually accompanying symptoms of iodism, with coryza, pharyngitis and a rise of temperature.

Considering the very wide use of bromides, the number of cases showing skin changes are few. Bromide acne is the commonest eruption, and it is similar to that due to iodide except, perhaps, that the lesions are not so red and angry-looking.

Bullous lesions are not produced by bromides, but granulomatous lesions on the face and limbs are well recognised, and in babies on the breast may be due to bromides taken by the mother and excreted in the breast milk.

Recently in the Skin Department an elderly lady showed numerous granulomatous areas on the legs. She had been taking 10 grs. of potassium bromide t.d.s. for five weeks.

When the bromide or iodide is stopped the lesions undergo involution, but it may take many weeks or even months for cure to occur. Large doses of sodium chloride may facilitate recovery, owing to substitution of the chlorine ion for the bromine ion by mass action.

Inorganic arsenic by mouth is not so widely administered nowadays. Symptoms of intolerance such as coryza, conjunctivitis and gastro-intestinal disturbances may preclude a prolonged administration. Skin changes are sometimes seen, even when the arsenic has been taken in years past. The most characteristic is the widespread brownish pigmentation due to the deposit of melanin. It may occur at the sites of normal pigmentation,

e.g., around the breasts or diffusely over the trunk. The appearance of a dingy brown discolouration showing numerous small less deeply pigmented spots, aptly compared to a dirty pane of glass after a shower of rain, is diagnostic. Prolonged administration of arsenic may cause abnormal dryness of the skin owing to atrophy of the sweat glands, but more commonly there is hyperkeratosis or abnormal thickening of the horny layer. This change is most noticeable on the palms and soles, where the horny layer is normally thickest, producing a diffuse roughness and thickening with the formation of callosities. The excess horny layer is the result of deposition of arsenic in the basal layer stimulating overgrowth of this tissue. When the overgrowth of the basal layer is localised and more active, warts result, usually seen on the hands. There is no doubt that these warts may later undergo malignant epitheliomatous change. In this connection there have been several American publications in which the authors describe cases of multiple basal-celled carcinomata in individuals who have taken a prolonged course of arsenic many years previously. In a high proportion of multiple rodent ulcers they claim to be able to demonstrate microchemically crystals of arsenious oxide in the epidermal cells. Arsenic is taken over a long period in the treatment of lichen planus and psoriasis. The possible sequelæ of such treatment, including those mentioned above, should be borne in mind and attempts should be made to stop arsenic as soon as possible, or at the very least to give long periods of rest.

The organic arsenical preparations given intravenously or intramuscularly may produce skin changes, sometimes severe, resembling those caused by the administration of the metals, gold and bismuth, by injections. The most important symptom of intolerance seen with these drugs is itching, and the patient should always be asked at any interview whether he has noticed this. Erythematous, irritable eruptions on the limbs, particularly in the flexures, with later weeping and oozing, is the common type of reaction with all three drugs. In severe cases the whole of the skin may be involved, giving an exfoliative dermatitis. It is usually accompanied by a rise in temperature and constitutional upset, particularly if the mucous membranes of the mouth and pharynx are involved. This complication of exfoliative dermatitis is a serious one, and, although most cases recover, they may take anything up to nine months to do so. In the aged or debilitated, death may occur due to a secondary infection, *e.g.*, pneumonia, particularly if the mouth is attacked. The three drugs may also produce lichen planus-like eruptions and follicular keratosis which do not threaten life, but, when affecting the scalp, may leave patches of permanent baldness. The gold salts are more liable to produce a stomatitis as an early symptom of intolerance. Recently, cases of severe purpura with thrombocytopenia have been described following the administration of gold in cases of tuberculosis. Bismuth is the drug the least likely to produce cutaneous reactions, but symptoms described above are not infrequently seen and reported.

All three drugs should be administered with care in patients over the age of fifty years and where there is evidence of renal or cardiovascular disease. Medinal, veronal, luminal and other hypnotics allied chemically may excite rashes. Commonly these are ill-defined erythemata. Medinal in some individuals reproduces the picture of erythema multiforme fairly clearly. On the hands, the lesions are circular, sharply defined, deeply red macules becoming bullous in the centre. Blisters are also formed in the mouth with, in severe cases, a rise of temperature.

The erythema of luminal may resemble that of measles, and the appearance, with the congestion of the mucous membranes of the conjunctivæ and the mouth, has led to some cases being certified as measles and sent to fever hospitals.

Many of the patent medicines sold as aperients contain phenolphthalein, which is capable of producing deep red plaques which, on fading, leave pigmentation. If the drug is taken again the old patches again become red and œdematous, for apparently only certain areas of the skin are sensitised.

Guy's Hospital Dental Society

ANNUAL DINNER

THE 37th Annual Dinner of the Guy's Hospital Dental Society will be held on Saturday, March 7th, at 7 for 7.30 p.m., at Grosvenor House, Park Lane, W.1. (Nearest station, Marble Arch.)

A Clinical Meeting, consisting of a Morning and an Afternoon Session, will be held in the Dental Department on the same day, to which all past and present students are invited. Demonstrations will be given by members of the Staff, and cases of clinical interest will be shown. The Morning Session will begin at 10.30 a.m. and the Afternoon Session at 2.30 p.m.

Correspondence

Psychotherapy

To the Editor of the GAZETTE

SIR,—Dr. Clifford Allen asks how many "obsessionals of some years' standing" I have seen cured at one sitting by suggestion. The answer is "None." Treatment by suggestion was not mentioned in my note on Psychotherapy in the *Gazette* for December 21st, and I said nothing about curing the ordinary psychoneuroses of civil life at a single sitting. I am at a loss to understand why Dr. Allen should think that Dr. Reynell and Dr. Ross, whose results I referred to, only get early and easy cases, while Dr. Neustatter gets all the more chronic and difficult ones. Early cases should be, and often are, successfully treated by the general practitioner by simple psychotherapeutic methods. The more chronic and difficult generally require expert treatment, and it was solely in reference to the prognosis and treatment of such cases that my note was written.

Yours faithfully,

ARTHUR F. HURST.

New Lodge Clinic,
Windsor Forest.

To the Editor of the GAZETTE

SIR,—It is with some temerity that I take up the challenge of such a distinguished critic as Dr. Hurst, but there are some points made in his "Notes on Psychotherapy" which I feel call for a reply.

I do not know why psychotherapists in general are picked out as being more suggestible about methods of treatment than their colleagues. Surely many physicians lay claim to results from their own pet treatments: courses of vaccines, to take a random example—which are not at all generally substantiated. Again the argument made is that once a psychotherapist "feels" he will not succeed, he will fail. I myself said that this was one of the difficulties of using hypnotism and suggestion, and was one of my reasons for preferring other methods generally.

It is noteworthy that all the examples of Babinski's failures quoted are in connection with hysterics. These are reputedly the most suggestible cases. Other psychoneuroses, anxiety states and obsessions are notoriously not suggestible, nor are the same mistakes in diagnoses likely to crop up to cause the difficulty cited.

All of which to me is an argument for the use of methods which are not so obviously dependent on suggestion.

But if the readers of my paper are going to be unable to cure patients in less than six months because of the suggestive influence of my writing, then it follows that, unless *all* the readers are already psychotherapists, then other medical men are as easily influenced by suggestion, too. In this case the whole argument founded on the exclusive suggestibility of psychotherapists falls to the ground.

I might further point out that in my article I favour the longer method of treatment in *severe* cases. In less severe cases obviously brief treatment may suffice. In the more severe cases one frequently obtains a history of the simpler methods having been tried with little or no result.

I contend that the justification of my method is, that the unburdening and insight obtained by the patient repays the trouble, and the time taken, though it sounds alarming, totals about 48 hours—with the patient usually at work. Little compared to the months of hospitalisation required by some illnesses.

As regards my figures being misleading, my answer is twofold. I have quoted from three other papers beside my own, and the results approximately coincide with my own. While not claiming to have passed from bud to full bloom, my own experience has been obtained from over three years' pretty solid psychotherapy on the staff of the Maudsley Hospital and in private. If my results appear pessimistic, then I should like to say in self-defence that an eminent and very orthodox psychiatrist commented on their utility, on the grounds that they did not claim too much.

It is perhaps the final paradox of the unhappy lot of those who practise psychotherapy that if they are optimistic about their results they are assailed by the orthodox psychiatrists; if they are pessimistic, then they are assailed by the general physician.

In conclusion, I should like to associate myself with Dr. Hurst in his advice to students to realise how frequent psychoneuroses are, and that psychotherapy (even if there is disagreement about the method) is called for.

Yours, etc.,

W. LINDESAY NEUSTATTER.

Guy's Hospital,
S.E.1.

Tea at the College

To the Editor of the GAZETTE

SIR,—In the course of a recent visit to some of my old haunts at Guy's I had occasion to go across to the College for tea. It would be no exaggeration to say that I was appalled at the conditions I found there.

The staircase, almost impassable because of the accommodation of bags, coats and hats, clearly pointed to deficient cloak-room accommodation. The smoke-room in the basement, crowded, untidy, dingy, dirty and neglected-looking, is one of the most uncomfortable places I have seen for a long time. The old library and "silence room," now a sort of sitting-room with the old newspaper stands that used to be in the smoke-room, is equally crowded, untidy and neglected-looking.

The present accommodation is obviously quite inadequate, but that is no excuse whatever for the filthy state in which the place is kept.

An organism reacts to its environment, and it is difficult to assess the damage which is being done to the morale of students who, by force of circumstances, may be compelled to spend much of their time under such conditions. What opportunity can it possibly offer for pleasant and comfortable intercourse with their fellows?

As a parent I ask myself whether I should feel satisfied that a son of mine should have to use such a hovel.

I should not—not in any circumstances.

This is the twentieth century, when an Act was passed called "The Slum Clearance Act." Is it fair or reasonable that lads who presumably have been decently brought up should be compelled to use a place which definitely *is* uncomfortable and *looks* insanitary?

It is admitted that there are probably difficulties in the way of the rebuilding which is urgently necessary. That, however, is no excuse for the present condition of the place. It is enough to bring a blush of shame to the cheek of every old Guy's man.

Yours, etc.,

"CARFAX."

The Phantom H.P.

To the Editor of the GAZETTE

SIR,—Your curious story of the stranger at Christmas-time brings to mind an occurrence of the summer session of, I think, 1888.

Amongst the usual small summer entry was a man about whose name and reputation there was no mystery, he being a Middlesex County cricketer. He played in one match, against Bart.'s, I think, and went in first. Next day his partner told me that he stayed with him till 67, of which his own share was 4, and I believe the total was 178, of which our new recruit made 148. A few of these games and the Cup was won. Some time in the winter the attention of the Dean was attracted by these scores, and the result of some researches showed that our champion had never been registered, and he disappeared at the end of the season. We had, of course, to give up the Cup, and put the best face possible (not a very good one) on an unpleasant episode.

Yours, etc.,

The Cliff, Clevedon, Somerset. R. L. WASON.

Guy's Hospital Reports

To the Editor of the GAZETTE

SIR,—I wish to dispose of some of the books that belonged to the late Prof. Pembrey. They include a long series of bound *Guy's Hospital Reports* (about 200 volumes, going back to No. x, 1840).

I wondered if you might know of anyone at Guy's who would be interested in the purchase of this series. I imagine that the demand for such books is limited, and therefore the market value low.

Yours, etc.,

The Grange, Ramsden, Charlbury, Oxon. K. E. PEMBREY.

An Echo

The following letter and Editorial comment were published in the *Lancet* of Saturday, November 21st, 1840 (page 325):—

GUY'S HOSPITAL

To the Editor of the LANCET

SIR,—Perhaps you will oblige me by inserting in the pages of your journal the following statement and inquiry:—

Last Sunday morning I was going round the wards of Guy's Hospital with Mr. B. Cooper; as is usual on Sunday, there were very few students present, but all who were there had their hats off excepting me.

As I did not feel myself shrinking into less than nothing by the side of Mr. Cooper, I kept my hat on. We had walked half through one of the wards when Mr. Cooper turned to me and sharply said: "Sir, if you cannot show proper respect to your superiors, I desire that you will leave the room; and until you have made an apology to me for your vulgar and ungentlemanly conduct, I shall not allow you to visit patients with me again!" Under these circumstances, Mr. Editor, what shall I do? My spirit objects to offering

an apology, yet if I refuse I shall be debarred from Mr. Cooper's cases, and probably expelled, for a certain period, as was a gentleman a short time ago who had *behaved badly at church* !

I am, Sir,
Your obedient Servant,
JAMES CLARK LARREN.

St. Thomas's Street,
London.
November 4th, 1840.

*** The custom observed in the Hospital should be followed by *all* students. Much greater grievances exist in Guy's Hospital than such as that of being required to walk uncovered in the wards. Mr. Cooper will accept, as the best "apology," an observance of the usual custom on other occasions. Respecting the expulsion of students from the wards, it may be observed that the rights of the pupils in the Hospital do not hang upon hat-pegs or rest upon pew-cushions.

Debating Society

OWING to his retirement from the Hospital, Dr. Ryle has vacated the Presidency of the Debating Society. His place has been filled by Mr. T. B. Layton. Dr. Ryle has consented to remain a Vice-President of the Society, and in retaining his interest and securing so redoubtable a dialectician as Mr. Layton as his successor, the Society has been doubly fortunate.

Mr. Layton will deliver a presidential address on Tuesday, January 21st. The subject is one of great importance, and one which will appeal to all: "The Medical Curriculum and What the Student can do to Amend it." No one is better qualified to talk on this subject than Mr. Layton, who sat on the recent commission instituted by the Universities to consider the many possible improvements that might be made in the present medical training.

The address will be given on January 21st at 4.45 p.m. in the College Smoking Room. No formal motion will be put, but the matter will be thrown open to general discussion after the address.

Reviews

Practical Zoology. By H. R. HEWAR. Published by Messrs. Hutchinson, Ltd. *Price* 5*s*.

Practical Biology for Medical Students. By C. J. WALLIS. Published by Messrs. Heinemann, Ltd. *Price* 12*s*. 6*d*.

Elementary Morphology and Physiology for Medical Students. By J. H. WOODGER. Published by Oxford University Press. *Price* 12*s*. 6*d*.

RECENT attempts to meet the difficulty of providing suitable books to assist the teaching of elementary biology in the laboratory have not been very successful. Here are two further endeavours, and it is with regret that we find them as peccant as their predecessors.

Mr. Hewar has compiled a small book covering a wide zoological field, wider than is necessary for the 1st M.B. This book gives only the briefest outlines for dissection, and no illustrations. Its value, therefore, must be very limited, as it can be of no use to the beginner, lacking as it does detailed methods of dissection, and it is insufficiently specialised for that verification of finer points which forms the major part of revision. It may serve some small purpose in reminding the student of those structures for whose anatomical relationships and morphology he must refer to the larger manuals.

Mr. Wallis's book is a more solid affair. It contains a chapter on elementary biochemistry of doubtful value. The following part, on plant biology, is the book's most valuable feature, but even this fails to provide for the real needs through a paucity of diagrams and drawings. The third part on animal biology is disappointing. The directions for dissection are far from explicit, and give the student little help in finding the structures. How can one "identify . . . the body of the fornix . . ." with not so much as a diagram to point the way? As to the pictures, it is surely a pity that practically all of them should be taken from other works, and still be such poor drawings and not without a mistake.

The third book is a new edition of an old and respected friend. With much pleasure we welcome it, and, as before, find our minds illuminated and

instructed by Dr. Woodger's excellent descriptive accounts. We are happy to recommend this book to every student of elementary biology to use both in the laboratory and out of it. We would like to add a hope that one day the author will find time to enlarge his book to embrace the full ground of zoology covered by the M.B. student.

Manson's Tropical Diseases. Edited by P. H. MANSON-BAHR, D.S.O., M.A., M.D., D.T.M. & H. (Cantab.), F.R.C.P. (Lond.). Published by Messrs. Cassell & Co., Ltd., 1935. Tenth Edition. Pp. 1,004. 22 Colour Plates, 15 Half-tone Plates, 381 Figures, 6 Maps and 38 Charts. *Price* 31*s*. 6*d*.

THE well-deserved reputation so long enjoyed by Manson's "Tropical Diseases" has not only been maintained but definitely enhanced by the Tenth Edition.

The whole of the subject-matter has been reset in rather smaller type, a circumstance which provided the editor with an opportunity for drastic revision, of which he has taken full advantage. The former lengthy appendix on Medical Zoology has been curtailed and the space used for considerable extension of the clinical and therapeutic aspects. So thoroughly has this been done that what was hitherto regarded as a justly popular text-book may now claim to have attained the status of a work of reference. As such, it will be welcomed by tropical practitioners and medical officers in the Fighting Services, who have to work in circumstances where an extensive library is both inconvenient and impossible. Notwithstanding the wealth of new material, the volume still retains its former size, an achievement made possible by the change of type and the omission of matter which has outworn its usefulness.

The needs of both the student and the practitioner of tropical medicine have been kept constantly in view, and the present edition fulfils these needs even more effectively than its predecessors. There has been no change in its general arrangement, but a subsection on Virus Diseases has been added, which, if rather brief, will doubtless serve the purpose for which it was intended.

It would be clearly impossible in the available space to give even a meagre outline of the new matter which has been incorporated in the new edition. The last edition bears the date 1929, and in any branch of medicine six years connotes important advances in ætiology, pathology, clinical outlook and treatment. When it is remembered that only a comparatively few years ago the subject of tropical medicine was like a virgin jungle, ready to yield secrets of major importance even to the casual pioneer, it will be realised that, although it is beginning to assume an aspect of cultivation and that much ground has been cleared, there are still many prizes to be won and a great field for investigation. Work has still to be done even on such familiar subjects as trypanosomiasis, leishmaniasis, malaria, sprue, pellagra and many others. For example, in the edition under review there is a "new disease," Rift Valley Fever, first described in 1931 as an epidemic disease of sheep and cattle in Kenya, caused by a filterable virus which, in certain circumstances, is communicable to man and caused the death of a laboratory worker in 1934 at the Rockefeller Institute in New York. As regards the lesser-known diseases such as tropical pyomyositis ainhum, big-heel, onyalai, and chiufa or "chinkumbi," all of clinical interest, the ætiological and pathological details are still waiting to be filled in before the treatment can be other than symptomatic.

It requires a nice discrimination to decide what is worthy of a permanent place in the pages of a standard text-book and what should be deferred pending further investigation; and it is unavoidable, except in rare instances, that there should be a time-lag between the publication of an alleged new discovery and its inclusion in a standard work. There must be a probationary period in the journals for attack and defence, for criticism and examination. This is only one of the problems which confront the editor of a volume on a subject which now numbers among its workers in many countries a growing and enthusiastic band and a rapidly increasing bibliography. Dr. Manson-Bahr is to be congratulated on the judicious manner in which he has fulfilled his by-no-means-easy task.

H. M. S. T.

A Text-Book of Medicine for Nurses. By E. NOBLE CHAMBERLAIN. Second Edition, Published by The Oxford Medical Publications. *Price* 21*s*.

THIS is the second edition of a text-book which was first published four years ago and which at that time received the imprimatur of the Chairman of the General Nursing Council. Miss Musson then referred to it as "a handy book of reference."

In his preface to the second edition Dr. Chamberlain after referring to the additions and alterations he has made, makes "no apology for the incorporation of material which some may deem unnecessary for nurses." To help the reader he has starred the accounts of the less common diseases, but it is surprising that he ranks laryngitis, appendicitis, angina, hyperpiesia, arterio-sclerosis,

myocardial degeneration, and auricular fibrillation among the rare diseases, and tetany, Addison's disease, mucous colitis, and acromegaly as common. Lack of proportion is further obvious in many places. For example, leprosy is given four times the space afforded to coronary thrombosis, and in a long list of possible causes for any one condition the important one is not always sufficiently stressed.

The chapter on diseases of the heart is disappointing, and under the heading of chronic nephritis he describes chronic parenchymatous nephritis only, and in no part of the book does he give any account of chronic glomerulo-nephritis.

This is the explanation of the amazing statement that "uræmia may occur during the course of acute nephritis or of arterio-sclerotic nephritis, but is less common in chronic nephritis."

As we expect in any book published by the Oxford University Press, the make-up of the book is excellent and the illustrations good. There is, however, a most misleading caption to an illustration of an œdematous hand. It reads, "This may be seen in cardiac failure, less commonly in nephritis."

At the end of the book Dr. Chamberlain has added chapters on dietetics, therapeutics, poisoning, technical procedures and a summary of the symptoms and treatment of all the common diseases, which should prove very useful.

List of New Entries, January, 1936

Medical

Name	*School or College*	*Year*
Arnott, P. L.	Haileybury	1st M.B.
Bernard, D. P. J.	Malvern College	1st M.B.(Camb.)
Booth, R. W.	Cheltenham	1st M.B.
Cormac, C. D.	Shrewsbury and Christ Church, Oxon.	4th Year
Crawford, J. P.	Wellington College	2nd Year
Gillett, J. A.	City of London Freemen's School	1st M.B.
Jackson, H.	University of Cape Town	4th Year.
Kustow, B.	Chelsea College	1st M.B.
Lauder, J. R.	University College School	1st M.B.
Leigh, R.	Dulwich College	2nd Year
Macdonald, I. M.	Bishops Stortford	1st M.B.
MacManus, N. L. M.	Stowe	1st M.B.(Camb.)
Nicholson, E. S.	Marlborough and Wadham College, Oxford	4th Year
Pritchard, L. F. G.	Blundells	1st M.B.
Shute, F. S. W.	Private	2nd Year
Spicer, C. C.	Charterhouse	1st M.B.
Thomas, J. M.	County Intermediate, Machynlleth	1st M.B.
Watson, W. A.	King's School, Ely	1st M.B.
Williams, J.	Latymer Upper School	1st M.B.
Worden, G.	Haileybury	1st M.B.

Dental

Name	*School or College*	*Year*
Barber, M.	Elizabeth College, Guernsey	1st B.D.S.
Drasdo, P.	Hymer's College, Hull	Pre-Medical.
Darracott, R. R.	Rydal School, Colwyn Bay	1st Year.
Drewitt, A. H.	Ottershaw College, Chertsey	Pre-Medical.
Fleming, J. R.	Merchant Taylors'	Pre-Medical.
Freer, A. C. G.	Wellingborough	Pre-Medical.
Gabb, D. L.	Tonbridge	Pre-Medical.
Glanville, K. R.	Highgate	Pre-Medical.
Hadley, P. C.	Swansea Grammar	Pre-Medical.
Holford, P. H.	Epsom	1st B.D.S.
Hurst, A. V.	Aylesbury Grammar School	1st B.D.S.
Jones, P.	County Intermediate, Machynlleth	Pre-Medical
Mordaunt, J. F.	Merchant Taylors'	1st B.D.S.
Stocker, R. B. D.	Berkhamsted	1st Year.
Taylor, B. P.	Cranbrook	Pre-Medical

"The Hæmodynamometer"

THE PRECURSOR OF THE SPHYGMOMANOMETER.—By "Stanley"

THE other day I happened to be reading through a course of lectures delivered by Magendie at the College of France in 1837-1838 on "the Blood and the Changes it Undergoes in Disease." Speaking of the effects of pressure on the vessel walls and using the simile of "a caoutchouc tube," he said: "In proportion as you add fluid the distension increases; in other words the interior pressure augments in the direct ratio of the injected liquid." He then drew a parallel between the "caoutchouc tube" and the arteries: "Now it appears to me quite natural that the arteries should be subjected to the same physical law; nevertheless this is a view which, I admit, stands in much need of confirmation. I have already attempted, in your presence, to increase the pressure by adding to the mass of the blood; but the mercury, instead of rising in the trials I made, underwent a considerable fall."

In his experiment Magendie sought to increase the blood-volume by the injection of water, and he ascribed the unexpected result to "diminution of the heart's contractility by the presence of water."

He therefore repeated the experiment, using "blood drawn from an animal of the same species as that on which our experiment is made; in fact, we will practise transfusion . . . which enjoyed in former times the highest degree of reputation and which has now fallen into the most complete discredit."

Speaking of the "discovery of the operation of transfusion," he mentions that it was "received with an enthusiasm bordering on frenzy," but "some imprudent essays, however, made on our own species, were followed by the most disastrous results, and the new discovery . . . was abandoned with as much inconsiderateness as it had been adopted."

Magendie thought it had been dropped, as well as adopted, too readily; and proceeded to point out the morphological differences of the "globules" in animals of different species, and—in 1837, bear in mind—mentioned the need for paying attention to the coagulability, physical properties and composition of the blood employed for transfusion.

He repeated the experiment mentioned above, using "two dogs of equal strength, only one is older than the other." The right carotid of each dog was exposed and to each was applied the instrument invented by M. Poisenille, by the inventor himself. Blood was withdrawn from the carotid artery of the donor by means of a syringe, the capacity of which is not stated, and was injected into the jugular vein of the recipient.

The instrument used to measure the blood pressure which had been invented by M. Poisenille was described in his work on "Researches on the Aortic Force of the Heart," published in 1828. It was an ordinary mercurial manometer exactly resembling those in use to-day. The proximal limb was filled with a saturated solution of sodium carbonate before connecting with the carotid artery. Connection was made by inserting the proximal limb into a tightly fitting brass nozzle provided with a thread by means of which it can be screwed into a tapered cannula which is secured in the carotid of the animal.

The following results are given as a matter of interest, but, as already remarked, there is no mention of the size of the syringe. Four syringefuls were given, and it is stated later in the lecture that "more than a pound of blood" was given in all. The readings taken were those of the maximum and minimum oscillation of the mercury with each successive bear.

Before Injection.—
Donor: 75-100, 75-100, 70-90, 65-95 (mm. Hg.)
Recipient: 70-105, 75-105, 65-100, 60-105 (mm. Hg.)

1st Injection.—
Donor: 60-85, 55-95, 70-80 (mm. Hg.)
Recipient: 70-100, 65-90, 70-90 (mm. Hg.)

2nd Injection.—
Donor: 70-100, 50-65, 60-75, 60-80 (mm. Hg.)
Recipient: 65-95, 70-100, 75-95, 60-90 (mm. Hg.)

3rd Injection.—
Donor: 40-70, 60-85, 50-75 (mm. Hg.)
Recipient: 70-100, 75-100, 60-95 (mm. Hg.)

4th Injection.—
Donor: 69-80, 50-65, 33-55, 45-70, 25-50 (mm. Hg.)
Recipient: 75-90, 70-80, 70-90, 60-95, 70-95 (mm. Hg.)

Magendie's observations on the reading are: "I must confess that, in spite of the information acquired through M. Poisenille's instrument I am at a loss what opinion to hold respecting the agency of the blood on the pressure of the walls of the arteries. . . . it would appear that in truth the volume of the blood has only a trifling influence on the force with which the column moved by the heart presses on the coats of the arteries. I dare not draw a premature inference from a single fact, but we have just seen that the gradual injection of more than a pound of blood did not increase the elevation of the mercury; far from this, towards the close of the experiment it oscillated below its normal level. . . ."

Sport

Rugby

Guy's v. London Scottish

AT Honor Oak Park on Saturday, December 28th, Guy's completed their fixtures for the first half of the season with a well-deserved victory over the London Scottish by 2 placed goals, a dropped goal and 3 tries (23 points) to a penalty goal and 2 tries (9 points).

The visitors, who had been touring Scotland over the holidays, were well below full strength, but, on the other hand, Guy's had to take the field without their scrum-half, Stanyon-Jaques (still nursing some injured ribs), Steytler and Fletcher.

Guy's started the game at high speed, and it was evident that they were out to establish a commanding lead in the early stages. Considering the heavy state of the ground, the backs handled the ball with surprising accuracy, and within five minutes Wright sent Hartley in for an unconverted try. With the forwards dominating the scrums and excelling in loose rushes, Guy's went further ahead following a glorious run by Allen, who gave a perfect dummy before passing to Wright to score a try near the posts, to which Kark added the goal points.

The Scottish now showed signs of improving, and their forwards attacked desperately, but the defence put up by the Hospital was magnificent. Every man on the opponents' side was marked, and as soon as the ball was handled he was collared and prevented from making further progress as the result of some first-class low tackling.

Playing with plenty of confidence the Hospital went further ahead when a free kick which should have brought relief to the Scottish fell into the arms of Hopkins, who raced through with Darke in close support, and the latter registered another try.

Several promising movements by the Hospital backs were spoilt by dropped passes, for the ball was very slippery, but another forward burst ended in Hopkins flinging himself over for a try, which Kark just failed to convert.

Near the interval the Scottish roused themselves and made Guy's defend desperately. The ball went loose in the Hospital's 25, and King, a fine opportunist, simply crashed his way over the line for the visitors' solitary score before the interval.

In the second half the Scottish played their traditional forward game, and undoubtedly their kick-and-rush tactics paid on the heavy ground. They had a better understanding, and for several minutes the Hospital line was besieged until a great forward rush in which Davies, Yerbury, Sharp and Hopkins were to the fore relieved the situation.

However, the Scottish backs got moving and Reid cut through beautifully; the movement was checked temporarily when Wright and Hartley crashed the winger into touch near the corner flag.

From the scrum that followed King again found a gap in Guy's defence, and waltzed over for another unconverted try.

At this juncture it looked as though the Scottish would pull the game out of the fire, but a great solo effort by Dick, who, after defeating two opponents, kicked ahead, lead to another score for Guy's.

The whole pack followed up this punt and, brushing all opposition aside, Yerbury and French dribbled the ball over the line for Kark to score near the posts, to which he added the goal points.

Subsequent play developed into a battle between the forwards and a scrum infringement gave M'Farlane the opportunity to kick a splendid penalty goal from near the touch-line.

Before the whistle sounded for no-side, Guy's attacked strongly, and, having gained a footing in the visitors' 25, the ball was sent quickly from the right wing to Wright, who steadied himself and kicked the ball just clear of the cross-bar for a brilliant dropped goal.

Team.—C. Halamandres; L. E. Milton, C. G. Wright, R. C. S. Dick, J. L. G. Hartley; R. D. Allen, D. I. Chapman; M. R. Kark, P. K. Hopkins, H. H. Crabb, E. B. French, E. R. Davies, C. S. Darke (Captain), R. O. Yerbury, E. C. Sharp.

Guy's v. Birkenhead Park

THERE was a good attendance at Honor Oak Park on Saturday, January 11th, to welcome Birkenhead Park in their return fixture with Guy's and, after an excellent game, the visitors were successful by 3 placed goals and 2 tries (21 points) to a placed goal and a try (8 points).

The Park, who had had a remarkably fine run of successes, fielded their strongest available side, and, with the exception of R. C. S. Dick, who was playing in the Scottish Trials, the Hospital were also at full strength.

During the first half Guy's played magnificently, and their form during this period suggested a revival of former glories. Unfortunately they suffered a misfortune early on when Fletcher pulled a leg muscle whilst scoring the first try and had to retire. He made a gallant effort to resume just before the interval, but had to give up almost

as soon as the game re-started. In the second half Guy's were further handicapped as the result of an ankle injury to E. R. Davies, and for a quarter of an hour they had to fight on with only thirteen men.

Prior to the interval the Hospital completely dominated their opponents, who took a long time to settle down. The ground was very heavy and sticky after the recent heavy rains, but a keen wind dried the ground as the game progressed and some remarkably fast play was seen.

From the kick off Guy's attacked, and for five minutes the Park were compelled to defend desperately in their 25. A fine kick by Hughes found touch near the half-way line, and an attacking movement between the visiting threes looked dangerous until Steytler intercepted, raced through and punted high and hard over the full-back's head. The Hospital forwards followed up fast and Fletcher scored a try in a favourable position, but Kark missed an easy kick at goal. This effort caused Fletcher's retirement, which was bad luck, as at this point Guy's were playing well and could not afford to have a forward missing from the pack.

The visitors tried hard to pierce the Hospital defence, but their short passing movements broke down before they had gone very far. Allen was playing a magnificent game, and his tackling was superb; furthermore, he continually drove the Park with some judicious kicks to touch. The whole team were now on their toes, and every man performed his task with credit. The combination of Bibby, Knowles and Morton proved very troublesome at times, but Hartley, Steytler, Sharp and Stanyon-Jaques got through a tremendous amount of work in checking this triangle.

An exchange of long-kicking between the Park's full-back and Wright ended in Douglas fielding the ball some forty yards out, and almost on the touch-line. Gathering speed very quickly, he surprised the visitors' left wing, doubled inwards past the full-back and raced in behind the posts for a splendid try which Kark converted.

In the second half Guy's had to face the breeze, and were at once in difficulties. Try as they might they could not shake off the attentions of their opponents, who were on the ball in a flash, and within five minutes Shennan opened the scoring for the visitors with a try near the corner, which Bibby converted with an amazing kick from near the touch-line.

During this attack Davies injured his ankle, but although he was off the field for some minutes, Guy's held out and prevented any further score before his return. However, nothing would go right for the Hospital, and, although they made one or two spasmodic raids, they very seldom got into their opponents' territory. In this half it seemed difficult to appreciate that Guy's were the same side—the worrying tactics of the visitors compelled Guy's to make many mistakes, both in kicking and marking, and in the closing minutes they were a well-beaten team.

Playing with plenty of confidence, Shennan got his backs into a smooth running machine, and in the last quarter of an hour they added thirteen points without response.

The Park levelled the scores when Bibby broke through, and his final pass enabled Hancock to score a try in a good position, but the effort to convert failed.

Guy's rallied for a few moments, but they soon fell away, and by quick reverse passing Steele and Hancock paved the way for Knowles to score a good try, which Bibby converted.

Immediately afterwards the same combination went through again, in spite of some excellent tackling by Wright, and on this cocasion Hancock scored an unconverted try near the corner flag.

In the last minute another great movement by Steele, Bibby and Knowles caught the Hospital on the wrong foot, and Hancock had the easiest of passages before scoring behind the posts, for Bibby to add the goal points.

Team.—C. Halamandres; D M. Douglas, C. G. Wright, J. van A. Steytler, J. L. G. Hartley; R. D. Allen, K. A. Stanyon-Jaques; M. R. Kark, P. K. Hopkins, H. H. Crabb, E. B. French, E. R. Davies, E. C. Sharp, R. O. Yerbury, P. Fletcher.

Hospital Information, etc.

Pass List

UNIVERSITY OF OXFORD.
December, 1935.
B.M., B.Ch.
P. E. Cresswell.
M.A.
P. E. Cresswell.

UNIVERSITY OF CAMBRIDGE
Michaelmas Term, 1935.
M.B., Ch.B.

PART I.

Surgery, Midwifery and Gynæcology.
B. C. M. Palmer.

UNIVERSITY OF LONDON.
M.S.
December, 1935.

BRANCH IV.

Laryngology, Otology and Rhinology.
W. H. Bradbeer.

SECOND (M.B., B.S.) EXAMINATION.

PART I.

December, 1935.

Pass.

A. G. Beaton — P. D. Priest
P. K. Hopkins — A. B. Renson

Anatomy and Physiology.

J. W. Lee.

SECOND EXAMINATION.

PART II.

W. A. Vale.

FIRST EXAMINATION FOR MEDICAL DEGREES.

December, 1935.

Internal Students.

J. E. Bulow — G. MacVicar
H. W. Bunn — E. C. Mobbs
S. N. Cole — E. R. Roseveare
J. Erulkar — G. W. Sawyer
J. L. G. Hartley — C. Sumsawaste
D. G. Horan — G. E. Thomas
W. James — R. Wadia
H. A. Kreiser — S. Wetherell
J. S. Liddle — H. W. Wheate

External Students.

T. A. H. Adkins — J. A. MacDonald
M. F. Gallop — R. Moore
H. A. Hall — H. G. Phillips
G. T. Hammond — P. H. Staple
B. D. L. Johnson — J. H. Wildman

December, 1935.

M.D.

BRANCH V.

Hygiene.

David Erskine.

THIRD (B.D.S.) EXAMINATION IN DENTAL SURGERY.

December, 1935.

Honours.

D. M. Paterson.

Pass.

W. A. Steiner.

SOCIETY OF APOTHECARIES OF LONDON. FINAL EXAMINATION.

December, 1935.

Surgery.

J. M. Lea — *N. O. Lucas

Medicine.

J. F. O'Malley.

Forensic Medicine.

J. F. O'Malley.

*Has now completed the Examination.

CONJOINT BOARD. FIRST EXAMINATION.

December, 1935.

Anatomy.

D. A. H. Johnson — D. B. S. Price
N. W. R. Lucas — G. S. Wigley
H. J. Noss

Physiology.

D. A. H. Johnson — W. R. D. Wiggins
T. S. Leedham — G. S. Wigley

Pharmacology.

W. J. Drummond — R. A. Stenhouse
R. C. Jackson — A. C. R. Wakeman
H. M. R. Knight — D. P. Walther
J. D. B. Perkins

Papers by Guy's Men

T. B. Layton. Treatment of acute frontal sinusitis. *Lancet*, 1935, ii, 1345.

Louis Forman. (1) Psoriasis lichenoides und en gouttes ; (2) Two cases of rosaceous tuberculide. *Proc. Roy. Soc. Med.*, 1935, xxix, 95, Sect. Dermat.

G. B. Dowling. Acquired hydroa aestivale with hæmatoporphyrinuria. *Proc. Roy. Soc. Med.*, 1935, xxi, 98, Sect. Dermat.

F. H. Stevenson. Pleuritic pain relieved by artificial pneumothorax. *Lancet*, 1935, ii, 1463.

V. E. Lloyd. Case of chancroid of a finger. *Brit. Jour. of V.D.*, 1935, xi, 259.

John A. Ryle. The treatment of some common digestive symptoms. *Brit. Med. Jour.*, 1936, i, 23.

L. J. Witts. Therapeutic action of iron. *Lancet*, 1936, i, 1.

A. T. Fripp. Fractures of the tibia involving the knee-joint. *Clin. Jour.*, 1935, lxv, 20.

T. Izod Bennett. The medical treatment of peptic ulcer. *Brit. Med. Jour.*, 1936, i, 69.

E. P. Poulton and F. A. Knott. The common cold—its prevention and cure. *Practitioner*, 1936, cxxxvi, 24.

N. Mutch. Favourite prescriptions—No. XIII: The Pharmacopœias of Guy's Hospital. *Practitioner*, 1936, cxxxvi, 103.

W. R. Spurrell. The contribution of sensation to movement. *Jour. Chart. Soc. Mass. and Med. Gymn.*, 1936, xxi, 179.

W. W. Payne and Bernard Schlesinger. A study of the sedimentation rate in juvenile rheumatism. *Arch. Dis. Child.*, 1935, x, 403.

Changes of Address

J. Kenneth Donald, Byways, Wodeland Avenue, Guildford. *Guildford* 282.

Norman L. Barber, 51, Welbeck Street, W.1. *Welbeck* 7362.

Norman W. Gardner, 51, Harley Street, W.1. *Langham* 3711.

Appointment

Ivan B. McCann appointed the Senior Medical Officer of the Central Home, Union Road, Leytonstone, E.11 (under the Council of the County Borough of West Ham).

Marriages

MANSIE—KIRKPATRICK.—On November 29th, 1935, James Walker Mansie, M.R.C.S., L.D.S., to Catherine Enid Kirkpatrick at Belhaven Church, Glasgow.

Births

McEVEDY.—On December 6th, 1935, at the Gables, Chester Road, Stretford, to the wife of Peter G. McEvedy, F.R.C.S.—a daughter.

WALTERS.—On December 20th, 1935, to Edith, wife of Lewis Walters, L.D.S., R.C.S. (Eng.), at "St. Jean," Wexham Road, Slough—a daughter.

EDS. { P. W. C. / M. A. P.

GUY'S HOSPITAL GAZETTE

A Journal of Medicine, Surgery, Dentistry and Hospital News.

PUBLISHED FORTNIGHTLY.

Volume L | *1st February* 1936 | *Number* 1240

PASSIM

WE very much regret that through the death of His Late Majesty King George V the Hospital has lost its Patron. His Late Gracious Majesty had held this office for twenty-five years, since his accession to the throne in 1910. Our loss, though a mere nothing compared with that sustained by the nation as a whole, is none the less very real to us.

IN writing last week on the subject of the deplorable condition of the College and Students' Club, we remarked upon the general apathy with which this state of affairs was viewed by the student body as a whole. We have been proved wrong. The editorial blood pressure rose with a violent swing of the mercury on receiving, on the eve of going to press, a letter deploring the present conditions and demanding immediate improvements, signed by no fewer than two hundred and twenty-eight students, or more than a quarter of the student body. We are very glad indeed that some interest is being taken in this matter.

We have been, at one time or another, to the student quarters of all the voluntary hospitals, with the single exception of the Westminster Hospital, which in any case is being rebuilt, and we are therefore in a position to say with certainty that in our view there is none of them which can compare with the Guy's College in dinginess of aspect and dirtiness of maintenance, in its perpetual overcrowding, and in the sense of repulsion which it is calculated to convey to the newcomer. It is true that we have also received a letter from the Secretary of the Students' Club to the effect that the sum of seventy pounds has been voted by the Clubs' Union for expenditure upon improvements. This crumb we gladly pick up. But what is really wanted is a total reconstruction of the whole building, or, alternatively, the provision of a new one elsewhere.

We have, since last writing, been into this question. The facts are these. It must, of course, be understood at the outset that the finances of the Medical School are entirely apart from those of the Hospital. The present College was built in the late 'eighties at a cost of a little over twenty thousand pounds. As a result of various financial transactions, the position is that the College (financially a branch of the Medical School) is now held on a lease from the Hospital. The rental, which is guaranteed by the Medical School, amounts to £900 a year, and the lease expires in 1942. The income of the College consists in the rent paid by the students who inhabit it, a thousand pounds a year paid by the Hospital to cover the maintenance of the Resident Staff, a sum of £200 a year paid by the Clubs' Union Council for the use of the Restaurant and Smoking Rooms, and a further £200 Government grant through the University of London. Even so the College is run at a loss of about £200 a year; this loss seems to us to be inevitable and not the result of any mismanagement; the expenditure goes to pay the porters, servants, and the upkeep and repairs, which are yearly increasing as the building grows older. It is clear, therefore, that from the College itself there can be no financial aid. Nor can the Hospital contribute, for it would not be allowed to do so by the Charity Commissioners, even if it had the funds. It is equally impossible for the Medical School to find the necessary sum, for there are already great demands upon its resources, with the erection of a new pathological block and an increase in its teaching staff.

The cost of rebuilding, or of a new building (and a site is likely to be obtainable) is estimated at about £60,000. Such a sum would provide a

college in which there would be no unrelieved stone corridors, no rooms in which the bed lets down from behind the bookcase, in which it would not be necessary to descend eighty steps to take pot-luck in getting one of the four baths in the basement, in which there would be some kind of heating other than the minute four-candle gas stoves which are the only means of warmth in the present building, in which there would be both reading and smoking rooms and adequate dining accommodation; it would no longer be necessary, as we ourselves have found it necessary before now (and indeed it is a strange state of affairs), to find a saloon car in which to sit outside in the street for the period of post-prandial digestion, because there was not a single available space within the club rooms after lunch. If the money could be found we believe that the lease of the site of adjacent warehouses, which are soon to expire, could be obtained at a far from exorbitant rate.

But the question still remains—whence are we to get our £60,000? There seem to be only two possibilities: either the money might be given by a donor, or it might be raised through a fund. We think that the second proposition might be feasible. The same thing has been done by St. Bartholomew's. But it would have to be a private fund, so as not to interfere with any appeal by the Hospital. It would not matter if the beginning were small and the accumulation slow. Indeed, if some energetic old Guy's man, such as "Carfax" (who originally started this discussion) were to take in hand the formation of such a fund, we feel it is possible that the money might ultimately be raised.

We have mentioned only a few of the difficulties in this paragraph, but, having been into this question, we are convinced that they are not such as could not be overcome, were we ever to get the necessary sixty thousand pounds. Well, what about the old Guy's men? Will anyone undertake the onerous and difficult task of organising a fund to raise, however slowly, the necessary sum? The Editors, penniless, incapable and unknown, fear that they can do nothing. Will anyone come over into Maze Pond and help us?

▭

We have received a letter from Mr. Law, the ophthalmic surgeon, in which he criticises an article which appeared in a recent number. Even more important than his criticisms, upon which we have commented beneath his letter, seems to us his attitude towards the *Gazette*. His letter illustrates very well two misconceptions which are commonly held. Firstly, he supposes that the *Gazette* is mainly read by the student and the newly qualified. We are never quite certain if it is read at all, but its circulation, which we do know, is largely distributed among Guy's men practising in London, the provinces and colonies. This external circulation is a little more than twice as great as the internal one, and it is a fact not sufficiently appreciated by those who so often tell us that the stolidity of the *Gazette* should be varied by a student levity; in that they think it a student paper produced for students, and that it should be, therefore, bright, light and occasionally vulgar, their view is not in accordance with the facts. We have never seen the majority of our readers, but we cannot imagine them to be in the bright, light and vulgar category; rather do we picture them with the bowler hat, the dark blue saloon and the duodenal ulcer. In citing his view of our circulation, however, Mr. Law's intention is not to induce us to levity; rather is he acting as a protector of the young, untutored mind, which is so liable to the wholesale absorption of unsubstantiated views. And this brings us to his second point. ". . . Such an article, Sir, I submit, is unfit for publication in such a journal as the *Gazette*." Whatever may or may not have been the merits or demerits of the paper of which he writes (and we, for our part, read it with interest and published it without hesitation), this sentence implies a conception of our subject matter which seems to us exalted and which flatters us unduly, as well as conveying an entirely false idea of the resources which we have at hand.

One would have supposed, though we are gradually being weaned from that view, that such a paper as the *Gazette* was intended for the publication of the technical views and teaching of the members of the Staff of that Hospital which in technical matters it represents.

We would agree that there is no actual moral obligation on members of the Senior Staff to supply the *Gazette* with material, and it would appear that we should be safe in saying that this is a view shared by the majority of our surgical and medical teachers as a whole.

We welcome Mr. Law's letter because it comes at a very opportune moment, and because it has been impossible for us to prevent the idea from drifting into our consciousness that if the present lack of support from members of the Senior Staff continues, it would be better, perhaps, for the name of the journal to be changed, if indeed it be continued at all, to the "London Bridge Agitator."

Of the thirty-five members of the Senior Staff we have had technical contributions from less than half in the last two years. During the whole

of this period only three members of the general Surgical Staff have yielded articles.

We cannot feel that this paucity of material is due to any lack of solicitation. It is inevitable that many hours must be spent in fruitless supplication and the Colonnade. The fact that one often comes away with a promise adds rather to the difficulty, and is of little consolation when the day for press comes round. Indeed, such promises have often given rise to the most urgent crises, and to those who have helped us on such occasions we owe our deepest gratitude. The editorial heart will always have a warm corner for Dr. Cameron, and our thanks are also due to Mr. Law himself, who, having sent us two contributions in the year in which he has been with us, is more than four times above the average.

MR. N. L. ECKHOFF, who since 1927 has been honorary secretary to the Clubs' Union Council, has recently resigned. All correspondence should in future be addressed to Mr. A. R. Clarke, who has succeeded him. During the period of Mr. Eckhoff's office, many improvements were made in the facilities provided for sporting activities in the Hospital, culminating in the recent extension of the ground and pavilion at Honor Oak Park. All members of the Clubs' Union indeed owe a debt of gratitude to Mr. Eckhoff for his great and arduous work on their behalf.

ON February 14th, at the Royal College of Surgeons, at 4 o'clock, Mr. C. H. Fagge will deliver the Hunterian Oration for 1936. We congratulate Mr. Fagge on this distinction, in the award of which he is the first Guy's man since Sir Charters Symonds, who delivered the address in 1921.

WE congratulate Air Commodore A. W. Iredell on his appointment as Director of the Royal Air Force Medical Services. Air Commodore Iredell was at the Hospital from 1896 to 1903, entered the Royal Navy in 1903, and subsequently joined the R.A.F. in 1918. The Director of the Medical Services of two of the fighting forces are now Guy's men. Surgeon Vice-Admiral Hall has since 1934 been Director-General of the Medical Services of the Royal Navy.

WE have been amused at the latest caprice of officialdom in appending to the list of cases for post-mortem the names of those physicians and surgeons from whose beds they come. We can only suppose that the purpose of this addition is to afford the keen student some further means of recognising the cases, since the increasing frequency of the diagnosis "?" is rendering their identification more and more difficult.

WE congratulate the following on their appointments :—

House Physicians—
To Dr. Poulton—Mr. J. A. J. Hammond.
To Dr. Marshall—Mr. R. McDonald.

House Surgeons—
To Mr. Davies-Colley—Mr. J. H. Mayer.
To Mr. Slesinger—Mr. J. E. Spalding.

Ophthalmic House Surgeon—
Mr. F. L. E. Musgrove.

Obstetric Resident—
To Mr. Chapple—Mr. J. R. Dickinson.

Out-Patient Officers—
Mr. P. W. Clarkson.
Mr. J. E. Elliott.
Mr. M. R. Kark.
Mr. C. A. Lillicrap.

Assistant House Surgeons—
To Mr. Ogilvie—Mr. T. G. Humby.
To Mr. Doherty—Mr. D. N. Leeming.
To Mr. Grant Massie—Mr. G. J. van der Merwe.
To Mr. Eckhoff—Mr. W. W. Cashmore.

Ear, Nose and Throat House Surgeon—
To Mr. Layton—Mr. H. M. Kelsey.

Genito-Urinary and Orthopædic House Surgeon—
To Mr. Thompson and Mr. Lambrinudi—
Mr. J. S. F. Sutton.

Fractured Vertebræ

A Clinical Lecture delivered at Guy's Hospital by C. Lambrinudi, Esq., F.R.C.S.

GENTLEMEN,—I am going to try and compress into the space of one lecture all that you need know about fractures of the spine.

The vertebræ may be fractured in one of three ways :—

1. By a compression force acting from above or below on an erect and comparatively rigid spine.
2. By a flexion force—and this is by far the commonest.
3. By a traction force, *i.e.*, fractures of the transverse processes.

COMPRESSION FORCE

This accident usually arises from something falling on the head when the spine is erect or by the body falling on to the head, as in diving; conversely, it may happen by falling from a height on to the feet or buttocks, and this is common in airmen, window cleaners, demolishers, etc.

In such cases the site of fracture is determined by three factors :—

1. The conformation of the bone, of which the atlas is an example.

2. The structure of the bone, of which the diver's fracture of C 5 or 6 is an example.

3. The situation of the bone, of which D 5 is an example, as it is situated at the apex of a normal curve. Another example is L 5, which is placed at the point where the spine is hyperextended.

The factor common to all these is that the spine, at the moment of impact, is held erect and comparatively rigid.

We will now discuss these seriatim.

I.—CONFORMATION OF THE BONE

Fracture of Atlas (*Diagram* 1)

The articular surfaces of the atlas are directed upwards and inwards, articulating with the occipital bone. A weight falling on the head will radiate along the line shown by the arrows and

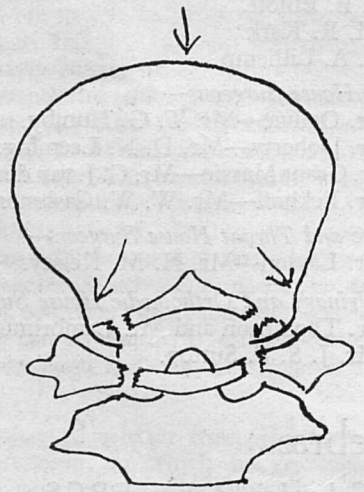


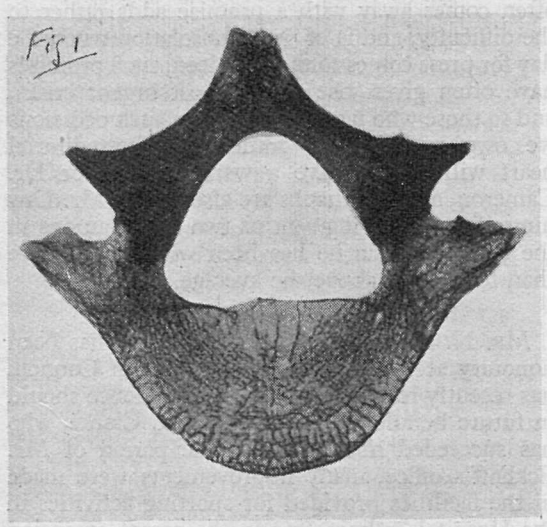
Diagram 1

will tend forcibly to separate the two articular processes. If the skull itself does not fracture, a quadruple fracture of the atlas occurs, consisting of an anterior, a posterior, and two lateral fragments.

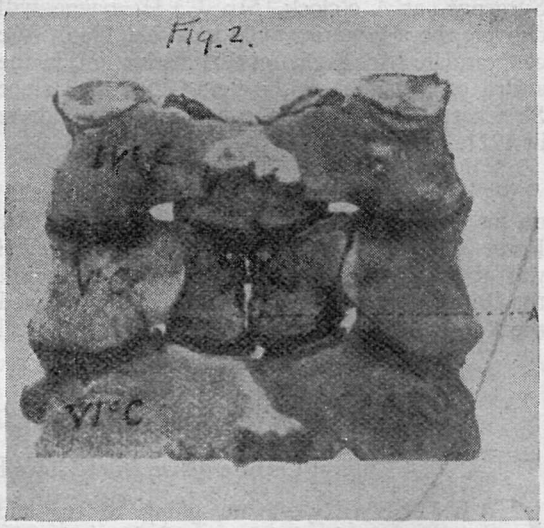
II.—STRUCTURE OF THE BONE

Diver's Fracture (*Figs.* 1, 2 *and* 3)

A horizontal section of the cervical vertebræ shows that the trabeculæ start from the pedicles and pass inwards towards the centre, but do not

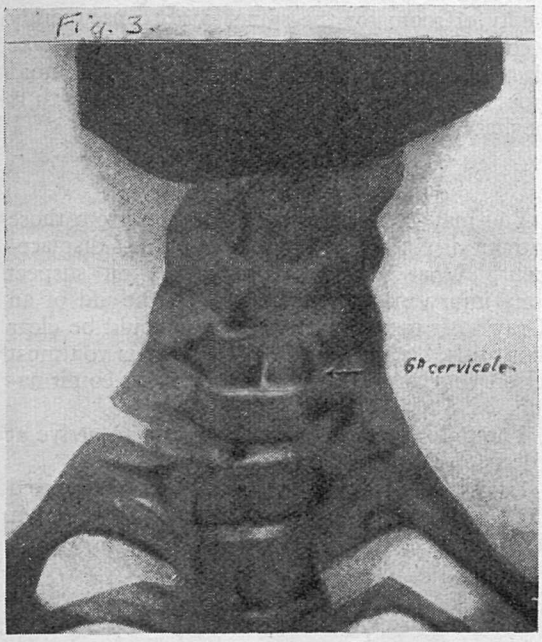


cross the mid-line. This is seen only to the cervical region; doubtless because here there are few lateral stresses. In consequence, the mid-line in the sagittal plane is a potentially weak area. When the diver's head meets the bottom of the



pool, the impact causes a peculiar and particularly fatal fracture of C 5 or 6. The centre of the body is fractured sagitally, and with it the two laminæ. A triple fracture results, consisting of the two

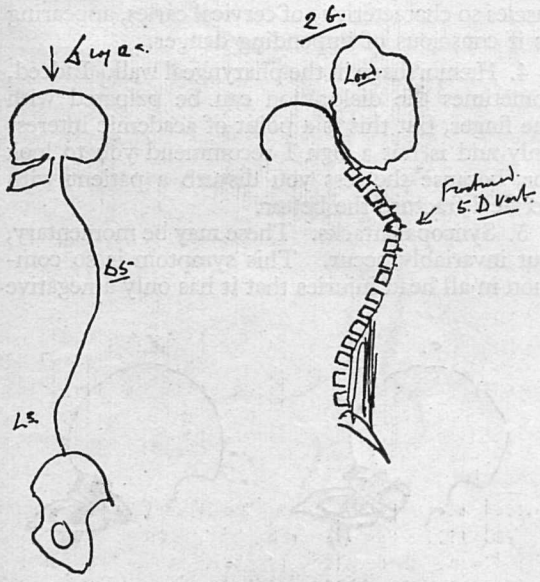
lateral halves of the body in front and the spinous process and the laminæ behind. It is produced



in the same way and is the exact counterpart of a quadruple fracture of the atlas. *Vide*

III.—SITUATION OF THE BONE, D 5 and L 5

In the erect posture the most prominent part of the dorsal kyphosis is formed by D 5 ; a weight



Diagrams 2*a* and 2*b*

falling from above, therefore, will produce a bending strain acting mainly upon this vertebræ, which may fracture. (Diagrams 2*a* and 2*b*.)

The position of L 5 is peculiar in that it is hyperextended in relation to the sacrum, so, if a mass falls from above or below when the body is held rigid or lordosed, all the weight tends to fall on the posterior part of this vertebra. The inferior articular processes of the 4th lumbar vertebra may dislocate backwards and impinge on the laminæ of the 5th, which may fracture. (*Vide* Diagram 3.)

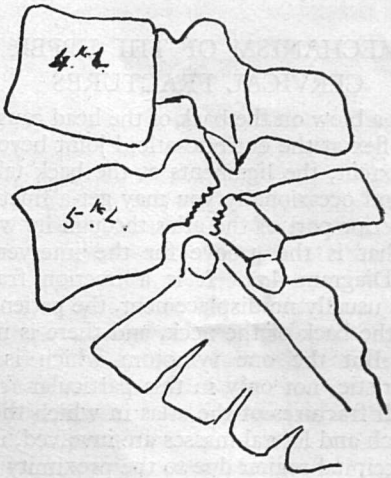


Diagram 3

This condition is rare, and is usually associated with a congenital abnormality of the 5th lumbar vertebra which occurs in about 5 per cent. of all spines. The congenital abnormality in question is either an abnormal length of the lamina or a deficiency of its ossification at a point between its superior and the inferior articular processes.

In the course of time under the influence of body weight, the body of L 5, together with the pedicle and superior articular processes, slips forwards, leaving the inferior articular processes, the transverse processes and spinous processes *in situ*.

The condition is called " spondylolisthesis," and is included in this review because, although this displacement may occur long after an accident, and may, in fact, occur without any accident at all, nevertheless in most cases a history of trauma of the nature described above can be elicited.

To sum up, then. C 1, C 5 or 6, D 5 and L 5 are the vertebræ that are most liable to be fractured by a compression force acting from above or below on an erect spine. But this mechanism is

a comparatively rare one; by far the commonest cause is forcible flexion of the spine.

FORCIBLE FLEXION

If you hold a cane in your hand and bend it, it will break near your hand, that is at the junction of the fixed and mobile part. The same applies to the spine, and you will agree that the parts of the spine to which this general statement applies are the upper cervical, at the junction of the skull and the neck, the lower cervical, where the mobile neck meets the comparatively rigid thoracic region, and the dorso-lumbar region, *i.e.*, D 11 and L 2.

MECHANISM OF THE UPPER CERVICAL FRACTURES

When a blow on the back of the head causes the head to flex at the occipito-atloid joint beyond its fullest extent, the ligaments at the back take the strain, and occasionally you may get a fracture of the posterior part of the atlas through its weakest point, that is the groove for the intervertebral artery (Diagram 4*a*). It is a traction fracture. There is usually no displacement, the patient feels pain at the back of the neck, and there is muscle spasm. But the one symptom which is most characteristic, not only in this particular fracture but in all fractures of the atlas in which the posterior arch and lateral masses are involved, is pain in the occipital region due to the proximity of the great occipital nerve. This fracture, however, is not common.

What is more likely to happen when the head is flexed beyond its normal limits is for the brunt of the force to fall upon the odontoid process. In such cases one of three things is liable to occur :—

1. Simple fracture of the odontoid process at its base without displacement.

2. Fracture of the odontoid process with forward displacement of the atlas.

3. Rupture of the transverse ligaments with forward displacement of the atlas without fracture of the odontoid process.

Diagrams 4*b*, 4*c*, 4*d* illustrate these, and you will readily understand that the most fortunate thing that can happen, if there is any forward dislocation of the atlas, is for the odontoid process to be fractured as well. In the cervical region there is plenty of room for the spinal cord, consequently a considerable amount of displacement can take place without injuring it, provided the odontoid process is fractured. If it is not, sudden death is inevitable.

DIAGNOSIS

You may get all ranges of fractures from those without displacement to those with gross displacement. What will clinically make you suspect bony injury in this region without the aid of an X-ray? It is important that you should be clear about this, because if you are suspicious you must act on your suspicions and not wait for confirmation.

The following points will help you to arrive at a decision :—

1. History of the accident, *i.e.*, an unexpected force acting on the back of the head causing it violently to flex.

2. Pain in the neck invariably associated with muscle spasm with or without deformity. The head is held in any position which gives relief from pain and all passive movements are resisted; no position is characteristic, but of course if there is a forward dislocation the head will be bent forward, or there will be torticollis if there is a lateral dislocation. The point, however, I want to insist on is that you must not exclude fracture because there is no deformity. It is the spasm that matters.

3. Anxiety of the patient. He may hold his chin in his hands, and often has the anxious fascies so characteristic of cervical caries, appearing as if conscious of impending danger.

4. Hæmorrhage in the pharyngeal wall. Indeed, sometimes the dislocation can be palpated with the finger, but this is a point of academic interest only and is not a sign I recommend you to look for, because the less you disturb a patient with cervical fracture the better.

5. Syncopal attacks. These may be momentary, but invariably occur. This symptom is so common in all head injuries that it has only a negative

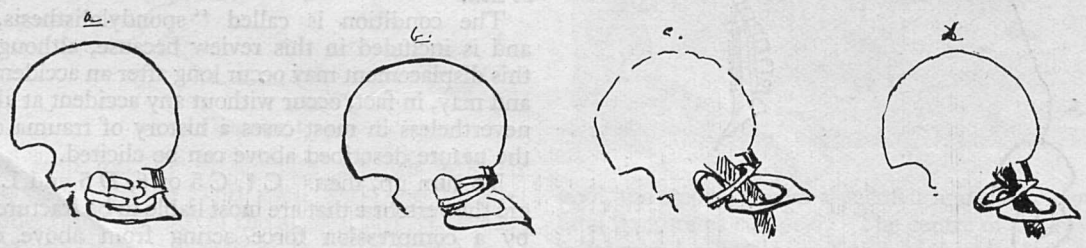


Diagram 4

value so far as cervical fractures are concerned, but you can say positively that if a patient whom you suspect of a fracture has not had a syncopal attack, then he has not got a fracture.

These upper cervical injuries should always be treated seriously, even when there is no deformity. If a fracture of the posterior part of the atlas is neglected it will be the cause of intractable headache, and if a fracture of the odontoid process without displacement is not treated, it usually fails to unite, in which case it will be the source of constant danger on account of the risk of secondary displacement. Several cases of sudden death due to this cause, long after the original accident, are on record.

The first aid treatment of all suspected cases is to lay the patient on his back, put something under the nape of his neck so as to allow the head to sag back, and put something else on either side of his head to prevent rotation.

DORSO-LUMBAR REGION

D 11 to L 3

Fractures in this region are the most characteristic, and any remarks made about them refer equally well to fractures elsewhere with certain modifications that will be mentioned. The reason why this is the commonest site is because the last dorsal and the first lumbar vertebræ marks the point where the two curves—dorsal kyphosis and lumbar lordosis—meet. It is, therefore, the point where the movement is greatest, and it is also the point where the strain is greatest, because the comparatively rigid dorsal spine meets the movable lumbar part (Diagram 5). Furthermore, it carries the whole of the upper part of the body, and the proportion of cancellous to compact bone increases as one proceeds down the spine, rendering the bones more friable.

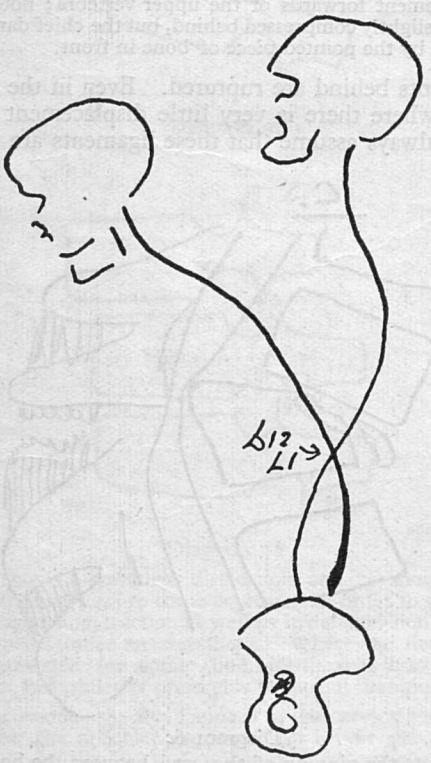


Diagram 5

For all these reasons the dorso-lumbar region is the most vulnerable part of the spine, and is especially liable not only to injury but to disease as well.

Flexion traumata occur under a variety of circumstances; it is a common accident in the hunting field, and any occupation which necessitates working in a stooping position predisposes to it. Miners, therefore, head the list of sufferers.

When a fracture of the spine is produced by forcible flexion, the mechanical force involved is a leverage action; the type of fracture therefore depends upon which gives way first, the fulcrum under the stress, or the lever under the strain, and three varieties therefore occur :—

1. Crushed fractures in which the fulcrum is primarily affected.
2. Fracture dislocations where the lever breaks first.
3. Dislocations where the fulcrum slips.

Of these the crushed fracture is by far the commonest, and is comparatively benign.

CRUSHED FRACTURE

(Diagram 6*a*)

I do not think that the diagrams require any further elucidation. The fulcrum has given way, the intervertebral disc is intact, and the displacement is small. The displacement is small because, once the vertebra is crushed in, the strain on the lever, which is the laminæ and spinous process, is relieved. Consequently it is rare to get a complete dislocation associated with crush fracture. The inter-spinous ligaments are, of course, strained, and the alignment of the joints between the superior and inferior articular processes is altered, the articular processes may even be chipped off, but complete dislocation is rare.

Very often people are unaware that they have sustained a crush fracture, and the injury may only be discovered several weeks or months later,

when a doctor is consulted on account of persistent backache after an accident.

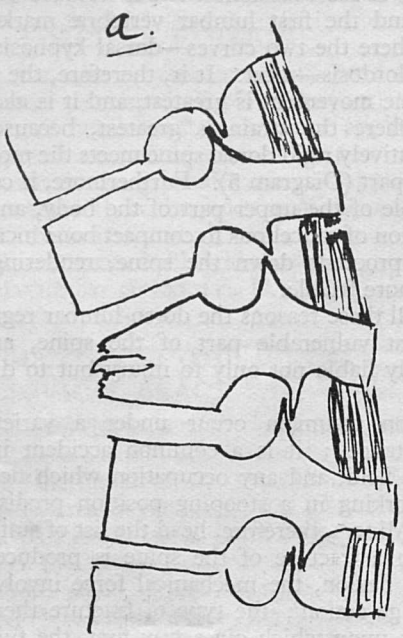


Diagram 6*a*

Note the altered alignment of the articular processes and the sprain of the inter-spinous ligament.

FRACTURE-DISLOCATIONS

(Diagram 6*b*)

In these the fulcrum, or the body of the vertebra, has withstood the stress and the posterior part or lever breaks first. The interspinous ligaments alone may rupture, or a piece of the spinous process or laminæ of the affected vertebra, or the one below it, may be pulled off; in any case once the continuity of the spine behind is severed, all the force is brought to bear upon the body of the vertebra which fractures. The line of fracture is oblique from behind downwards and forwards, and the upper fragment, which is always the smallest, slips forwards, carrying the whole trunk with it. The displacement is variable, but it is usually more marked than in a crush fracture. It is surprising the amount of displacement that can occur in the dorso-lumbar region without the cord getting pinched, but in the dorsal region any considerable displacement is invariably accompanied by a cord lesion, because the cord occupies more room in the spinal canal. Such fractures in the upper half of the dorsal region are not unfrequently associated with fractured sternum.

The essential difference between a crush fracture and a fracture dislocation is that in the latter the fracture of the body is oblique and the

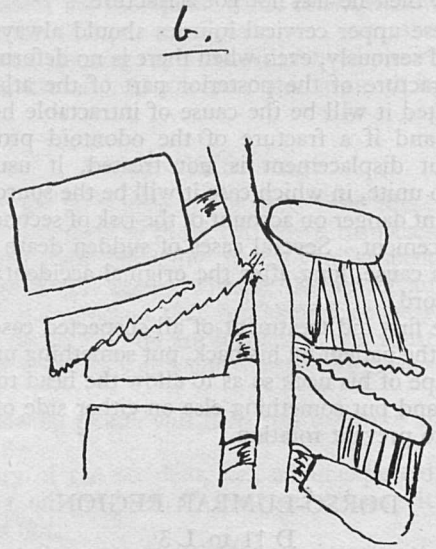


Diagram 6*b*

The spinous process and the laminæ have been fractured, with an oblique fracture of the body, and displacement forwards of the upper vertebra; note the cord is slightly compressed behind, but the chief damage is done by the pointed piece of bone in front.

ligaments behind are ruptured. Even in the rare cases where there is very little displacement you must always assume that these ligaments are torn

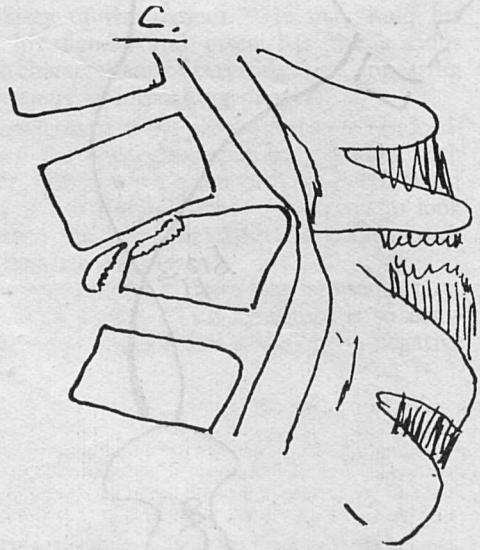


Diagram 6c

Note the nipping of the cord between the body of the first vertebra and the laminæ above it. Note also the rupture of the inter-spinous ligament.

and that the spine is unstable. Whereas, there may be little risk in a patient with crush fracture walking about, in an oblique fracture, even without dislocation, the risk is considerable.

DISLOCATIONS

The one thing that crush fractures and fracture dislocations have in common is that in both cases the intervertebral disc is intact. In a dislocation, however, it is this structure which is chiefly damaged. A dislocation is seen in its purest form in the cervical region. The neck is designed for mobility as opposed to stability, and the part that is most liable to severe injuries is the lower part between the 5th and 6th cervical vertebræ. Such

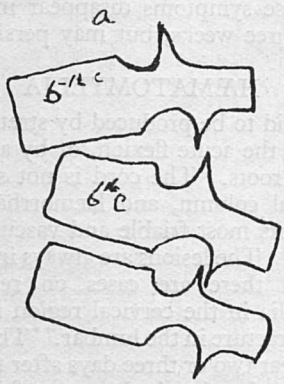


Diagram 7*a*

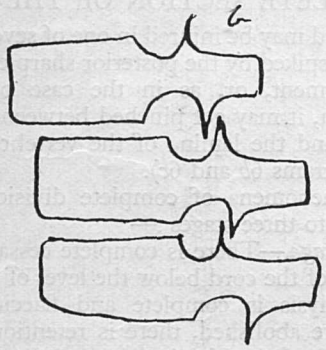


Diagram 7*b*

7*a* shows a complete dislocation, and 7*b* shows how the vertebræ tend to come together. In order to prevent this happening, traction as well as hyperextension should be applied under an anæsthetic. Where the deformity has persisted for some time, continuous traction by weight and pulley is preferable to violent manipulations.

The reason why this happens in the cervical region, is because the articular processes are set in the coronal plane. In the Dorso-Lumbar region they are placed sagittally, and therefore are not likely to become locked in the same manner.

dislocations may be complete, by which is meant that the inferior articular processes of the 5th vertebra comes to lie in front instead of behind the superior articular process of the 6th, or it may be incomplete, or again it may be unilateral. The position in which the head is held depends upon what the condition is, but in all cases muscle spasm is marked and pain is acute. (Diagrams 7*a* and 7*b*.)

In the lumbar region dislocations sometimes occur, but they are never pure ones ; there is always a small piece of bone broken off, but the intervertebral disc sustains the most damage (Diagram 6*c*). The intervertebral disc is a most important structure in the mechanism of the spine, and when it is injured the prognosis, so far as the spine is concerned, is more serious because osteo-arthritis between the bodies of the vertebræ, together with progressive deformity, is almost impossible to prevent.

DIAGNOSIS

What are the signs and symptoms that must make you suspect a fracture of the vertebræ ?

1. Nature of the accident, *i.e.*, flexion force.
2. Pain in the back ; this varies from a backache as in mild crush fractures, to acute agony.
3. Local tenderness. This is invariably present, for even in mild cases the ligaments behind have been strained and, of course, when they have been ruptured or the spinous process fractures, the tenderness is very marked.
4. Local spasm of the muscles. This is also invariably present. The erector spinæ muscles stand out in spasm, especially at the site of fracture.
5. Bruising, making its appearance two or three days after the accident. This does not by any means always occur, but when it does it is almost pathognomonic of a deep-seated fracture.
6. Paralysis.

FRACTURE OF THE TRANSVERSE PROCESSES

These are essentially traction fractures, and most often occur when a man falls violently on to his back with his legs in the air. After the impact the momentum forces his legs straight against the resistance of the psoas muscles, which are contracted, and one or more of the transverse processes, usually the 3rd, are torn off. It may also occur by falling to one side when the muscles of that side are taut.

These patients complain of pain in the loin, but very often the fracture is only discovered accidentally during a routine X-ray examination. The sign that is most characteristic of it, when present, is the late bruising which has already been mentioned as pathognomonic of a deep-seated bone lesion.

FIRST-AID MEASURES

What steps should you take if you witness an accident where you suspect the dorsal or lumbar vertebræ to have been fractured?

Turn the patient over on to the face, put a pillow under the chest and knees, and transport them in that position. Quite recently this has been the subject of a discussion at the British Orthopædic Association, and the majority of opinion was in favour of adopting this position as a first-aid measure.

This accident commonly occurs in mines, and the injured man may have to be transported long distances by two men, one lifting him by the legs, the other holding him under the shoulders; the patient's body sinks between the two and, if he is face upwards, the spine, which has already sustained a flexion injury, is still further flexed. A colleague of mine described an instructive case. He witnessed a riding accident to a lady and suspected a fractured spine. He noticed that when she was lying on the ground she was able to move her legs; there was no immediate paralysis. She was lifted rather brusquely on to a stretcher without first taking the precaution of turning her over on her face. When she arrived at the nursing home she was found to be paralysed, and the X-ray showed marked displacement.

The advantage of turning the injured man face downwards is that when he is lifted up by the legs and shoulders the spine is extended, and the risk of secondary injury to the cord is diminished. The only contraindication to this is when there is an associated fracture of the ribs or sternum.

COMPLICATIONS

Injuries to the C.N.S. :—

1. The cord :—
   - (*a*) Spinal concussion.
   - (*b*) Hæmatomyelia.
   - (*c*) Partial section.
   - (*d*) Complete section.
2. Root lesions :—
   - (*a*) Pneumonia.
   - (*b*) Paralytic ileus.
   - (*c*) Pressure sores.
3. Sympathetic system.

Late :—

- (*a*) Kummel's disease.
- (*b*) Osteo-arthritis.
- (*c*) Late cord and root lesions.

This is a formidable list, but before discussing them I want to make it quite clear that, in spite of the proximity of the cord, cord lesions are not the rule. The reason for this is that crush fracture is the commonest variety of fractured vertebra, and these are not often accompanied with gross displacement. The part of the spine where cord complications most commonly occur is the dorsal region, because in these cases there is more displacement and the cord occupies more space in the spinal theca.

SPINAL CONCUSSION

The phenomenon of spinal concussion is a very real one, and is apt to be misleading, for it bears no relation whatsoever to the severity of the bony injury; indeed it often exists without any. It is characterised by a total cessation of the function of the cord immediately following the injury, and the body lies flaccid. Recovery usually is rapid, but, on the other hand, spascity of the quadriplegic, hemiplegic, or monoplegic varieties may supervene. Usually these symptoms disappear in the course of two or three weeks, but may persist longer.

HÆMATOMYELIA

This is said to be produced by stretching of the cord during the acute flexion, or by a pull on the cord by its roots. The cord is not so pliable as the vertebral column, and hæmorrhages are apt to occur in its most friable and vascular part, the grey matter. The lesions are always in the cervical region, and there are cases on record where hæmatomyelia in the cervical region is associated with crush fracture in the lumbar. The symptoms usually appear two or three days after the accident, but, on the other hand, they may follow upon a period of spinal concussion.

COMPLETE SECTION OF THE CORD

The cord may be injured in one of several ways: it may be spiked by the posterior sharp edge of the lower segment, or, as in the case of anterior dislocation, it may get pinched between the lower segment and the lamina of the vertebra above it (*vide* Diagrams 6*b* and 6*c*).

The phenomena of complete division can be divided into three stages :—

First Stage.—There is complete cessation of all functions of the cord below the level of the lesion. The paralysis is complete and flaccid, all the reflexes are abolished, there is retention of urine and fæces and the blood pressure is low.

If the patient survives long enough, *i.e.*, about five or six weeks, the picture gradually merges into the second stage.

Second Stage.—All voluntary movements are still absent, but spasticity has taken the place of flaccidity. Anæsthesia is still complete, but there may be subjective sensations of painful cramps in the legs. The reflexes are now exaggerated, and the bladder and rectum evacuate automatically instead of the retention as heretofore.

A characteristic feature of this stage is the mass defensive reflex; a slight stimulus to the foot or any part of the body causes the foot to dorsiflex at the ankle joint, the knee to flex, and the thigh to be drawn up. This is sometimes associated with a general extensor reflex of the other leg, and these may alternate.

Before this automatic stage of complete section was recognised, these involuntary movements of the limbs and automatic action of the bladder and rectum were mistaken for signs of recovery. This supposed recovery was often attributed to some operative procedure such as laminectomy, but it is now known inevitably to follow upon the first stage of flaccidity and bears no relation to recovery.

Third Stage.—Cachectic phase. The patient gradually goes downhill, loses weight, develops pressure sores, and finally succumbs to pneumonia or urinary infection. Death usually occurs within six months.

PARTIAL DIVISION OF THE CORD

It is at first quite impossible to be sure whether a case is one of complete or partial section, because in these also the same early stage of complete cessation of function of the cord exists. It is only after a lapse of a few weeks that anything positive appears. The first sign of recovery is return of sensation. The order in which the sensations recover is variable; any one of them—touch, pain, heat, cold, stereognosis, or vibration sense—may appear first. Next comes the return of voluntary power starting in the extremities of the limbs, *i.e.*, hands and feet, gradually going upwards. The last function to be restored is sphincter control.

The degree of recovery depends upon the severity of the lesion. If the laceration is small, complete recovery can be expected, but it is well to emphasise again that in the early stages there is no means of telling how severe the lesion is.

INVOLVEMENT OF THE SYMPATHETIC

In the past, when patients developed chest complication they were attributed to pneumonia. But during the war, when there was an opportunity of examining a large number of these cases, it became recognised that not only the early chest conditions, but also some very alarming abdominal symptoms were due to involvement of the sympathetic. Although these may occur with injury to any part of the cord, may be associated with spinal concussion just as much as with compression, and may, in fact, exist without any bony lesion at all, they are decidedly more common when the dorsal region is affected. The symptoms to which they give rise are essentially congestive: œdema, hæmorrhages, hyper-secretion, and also paralysis of the viscera. Within a short time signs of bronchitis and pneumonia appear, or abdominal symptoms may predominate with vomiting, distension, hæmatemesis, rapid pulse, restlessness; in fact, all the signs of an acute abdominal catastrophe. It is very important that you should bear in mind these dramatic chest and abdominal complications of cord lesions, which, after shock, are the commonest cause of death in the early days.

ROOT PAINS

These are a common accompaniment of a cord lesion, and they may constitute an extremely painful complication, for they may persist after the major symptoms have improved. A distinction must be drawn between the root pains that occur soon after injury and persist, and between those that come on long after and are directly due to osteo-arthritis.

It is not uncommon to hear it said that these root pains are due to compression of the nerve in the neural canal. But in point of fact in nearly all fractures of the spine the neural canal is enlarged rather than diminished, and the source of the pain is actually in the spinal canal (*vide* Diagram 6*a*).

It is important to realise this, as any attempt to treat the neuritis by means of injections or sections distal to the cause will, of course, be fruitless.

These, then, are the general characteristics of cord lesions whatever the level, but lesions of the cord at particular levels give rise to characteristic phenomena. For instance, pinching of the cord by the odontoid process is immediately fatal. An example which is quoted in all the text-books is the characteristic attitude assumed by patients with fractures of the 6th cervical vertebra. The arms are held abducted, flexed at the elbow and supinated; the reason is that everything below the 6th cervical nerve is paralysed, so that the muscles supplied by C 5 and C 6, *i.e.*, the deltoid, external rotators, of the shoulder, and the biceps are not affected, and consequently determine the position of the upper limbs.

If you know your sensory distributions and the level in the cord of the centres for the various reflexes, you can work out for yourselves the signs peculiar to any level.

LATE COMPLICATIONS

The only late complication to which I shall refer is Kummel's disease. It has a definite

clinical picture, which is as follows: A man sustains an injury to his back; an X-ray may or may not be taken—in any case nothing very striking is seen. After a short while he returns to work and all goes well, but, about nine months or so later, he gets a pain in the back and notices a prominent spinous process. X-ray then shows a subsidence of one vertebra. Kummel attributed the condition to a post-traumatic osteo-porosis. Schmorl held that the initial injury produces an intra-articular fissure, not noticeable in the X-ray, and that in the course of time the nucleus pulposis herniates into the body of the vertebra, destroying its substance, so that the vertebra ultimately collapses.

The present view is that all these cases are in reality crush fractures from the beginning, but have been missed on account of (1) faulty X-rays, or (2) failure to take a lateral as well as an antero-posterior picture. Consequently the fracture is not treated, decalcification occurs, and the softened bone collapses under the influence of body weight.

TREATMENT

Cervical Region.—All fractures and dislocations whatever the situation or severity must be treated by prolonged immobilisation in a plaster collar. The reason why the odontoid process has earned for itself the reputation for failing to unite by bone, is the same as in the case of the carpal, scaphoid, and of the neck of the femur—insufficient immobilisation. Even when there is only a crack in the odontoid process without displacement, a well-fitting plaster collar must be applied and kept on for a minimum of three months. The same refers to fractures of the posterior arch of the atlas.

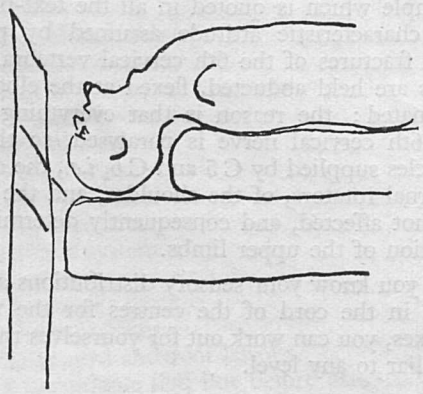


Diagram 8

The technique of applying these collars is not always easy. In very mild cases with no displacement the collar can be applied with the patient sitting up, but if there is displacement, and particularly if an anæsthetic has had to be given in order to reduce it, it is extremely difficult to put a plaster on without the most up-to-date facilities. Personally, I prefer to reduce the deformity first and then lay the patient on a bed with two mattresses, the top one lower than the bottom one. The shoulders and body lie on the upper mattress, while the occiput rests on the lower (Diagram 8). In this position, which is not uncomfortable and offers no difficulty in nursing, the neck is kept hyperextended and lateral movements are controlled by means of sandbags. After a week or two I apply a plaster collar in two halves. Without altering the position of the patient the front part is made with plaster slabs, and when it has set it is bandaged to the body; the patient can then safely be allowed to sit up in order to make the posterior half. The two are then bound together with plaster bandages.

All plaster collars must include the chin and occiput, must rest snugly on the shoulders, and extend to well below the level of the nipples. In the case of fractured odontoid process it is best to carry some plaster bandages around the forehead to prevent rotary movements.

Dorsal and Lumbar Fractures.—The treatment of these can be summed up in the word "hyperextension." Since Watson Jones popularised this method, the prognosis of vertebral fractures has been immeasurably improved. The method is

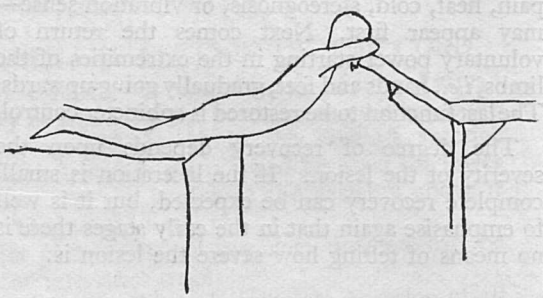


Diagram 9

simplicity itself, as the diagrams show (Diagram 9). The points to observe are:—

1. The table on which the arms rest must be one foot higher than the one on which the legs rest.
2. The plaster case must be carried up to the top of the sternum in front, but to the level of only one vertebra above the fracture behind.
3. It is wise to put a strip of felt over the spinous processes as they are tender on pressure.
4. The patient should rest in bed for seven to ten days, and must then be encouraged to resume a normal life.

5. The jacket must be kept on for four months at least.

If you allow time to elapse after accident for the shock to wear off, it is often possible to apply the plaster jacket without an anæsthetic. If an anæsthetic is required, there is no difficulty about it, but there is one warning I must give you: If you hyperextend the back too much there is a tendency for alarming abdominal distention to follow. This is no contraindication to extreme hyperextension, provided you are warned about it and are prepared to meet it energetically when it occurs.

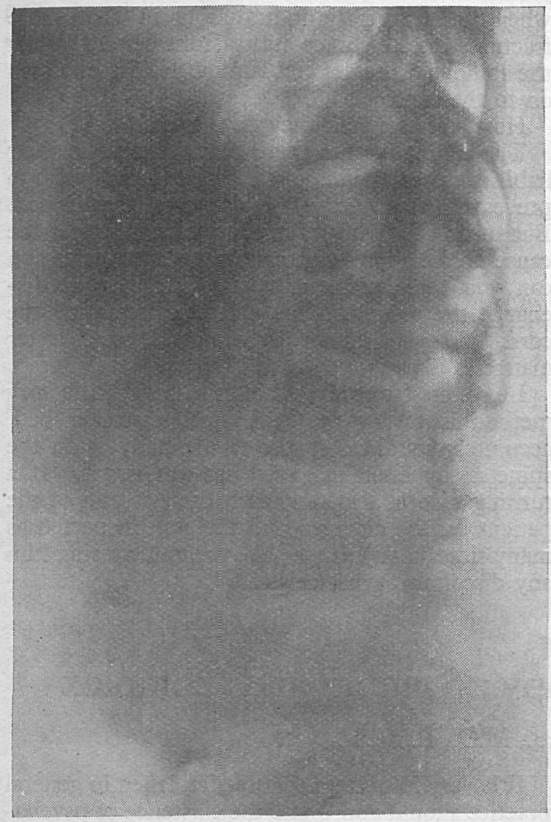


Fig. 4
Dislocation of 12th Dorsal with small chip off the body of the 1st Lumbar

The hyperextension method is suitable, in fact is the only satisfactory one, both for crush fractures and fracture-dislocation. In nearly every recent case you can reduce the deformity completely, but in bad fracture-dislocations it may not always be possible in the dorsal and lumbar regions to restore the correct alignment of the articular processes, so that the body of the disloctaed vertebra comes to lie a little in front of the one below it. The angulation will have been corrected, the bony causes of a cord lesion will have been removed, but there may be a tendency for the deformity to recur after the jacket is taken off. In order to prevent this happening it may be necessary to put a bone-graft between the spinous processes of the two vertebræ three months after the hyperextension in plaster.

Fig 5
Same case in hyperextension plaster. At the end of six weeks the patient was able to lead a completely normal life and had little discomfort in the plaster jacket.

TREATMENT OF FRACTURES WITH CORD COMPLICATIONS

Is laminectomy advisable? This question can be answered under three headings :—

1. From our brief review of the various cord complications one thing that emerges is that it is almost impossible in the early days to diagnose the extent of cord involvement. Even a mild laceration

of the cord gives early symptoms suggestive of complete section, and it is not until a week or two has elapsed that signs of recovery appear. If, therefore, you make a routine of laminectomy, you will probably operate on a good many cases that would have recovered spontaneously.

2. You cannot always discern in the X-ray what is the mechanism that is injuring the cord. If the cord is spiked by the pointed posterior part of the lower segment (*vide* Diagram 6*b*), it is obviously no good doing a laminectomy, because the damage is due to a laceration in front, not a compression. To attempt to remove the spike of bone from the front of the cord is to embark upon a difficult, dangerous and destructive operation in a patient who is already seriously ill.

3. In cases where the mechanism is compression, it might be tempting to advise laminectomy. But there are certain mechanical considerations which render it inadvisable. In a fracture-dislocation what little stability remains to the spine is provided by the posterior part. If you remove the laminæ and spinous processes you will render the spine more unstable. I know of a case where a laminectomy was performed, with an immediate brilliant result. But it was so impossible to stabilise the spine afterwards that the deformity rapidly increased, paralysis recurred, and the patient died.

From every point of view, therefore, it can be said that laminectomy has not a place in the treatment of these cases. The only circumstances when it is urgently indicated is in those rare fractures due to direct injury from behind, when the spinous processes and laminæ are driven down on to the cord.

How, then, should they be treated?

The difficulty that these cases present is their liability to pressure sores. The usual way to prevent this is to nurse the patient on a water bed. But to do this is to make no attempt to treat the cause of the cord lesion; only by hyperextension can you remove the compressing factor or disengage the piece of bone which is lacerating the cord, and you cannot hyperextend on a water mattress.

I have no doubt myself that the only satisfactory method is to lay the patient in a plaster bed, accurately moulded to the whole body, with the spine as hyperextended as you can get it. If a turning case is also provided, the position of the patient can be changed and the skin inspected as many times a day as you like without causing him any discomfort whatsoever.

Some Notes on Psychotherapy; Simple and Complex

By R. D. Gillespie, Esq., M.D., F.R.C.P.

DR. HURST has taken Dr. Neustatter to task for his statement that treatment of psychoneurotic ailments requires three to six months, at the rate of at least three sessions a week. Dr. Hurst asserts that most psychoneurotics (60 per cent. is the figure he suggests) can be cured in a few sittings. As so often happens in controversy, both are right; but they are not talking of the same class of case. Dr. Neustatter is looking at it more from the point of view of a specialist to whom come a high proportion of difficult and desperate cases. Dr. Hurst speaks as someone looking at it from the point of view of what may be encountered in general practice.

It is well, therefore, that Dr. Hurst should have drawn attention to the possible inferences which may be made from the statements of Dr. Neustatter, if they are left unqualified; for anyone who embarks on the treatment of psychoneuroses in general with the idea that treatment is going to take a long time will find that it does in fact take a long time, so great is the power of suggestion in this type of illness.

It is very important that medical men in general practice should appreciate the existence of psychoneurotic conditions and have some knowledge of the short forms of treatment. How important is not yet generally realised; important on the ground of numbers alone, for these conditions are among the commonest that are encountered in general practice and far commoner than the conditions associated with any other single branch of medicine. The first real statistics on this point in this country (we had to be content with estimates before) are those published by my friend, Dr. J. L. Halliday, who took 1,000 of the insured population who were referred to him as a medical referee in cases of sick benefit under the National Health Insurance Acts; and he found that 35 per cent., although many had been diagnosed as "anæmia," "gastritis," or "rheumatism," had no physical disease, but were suffering from anxieties and fears which determined their symptoms. This is a representative figure for any practice, of people suffering from anything but the shortest kinds of illness; and is, therefore, a sample of what any of us might have to meet.

Many general practitioners that I have met have put the incidence at higher than this, but perhaps the higher figures represented their sense of the burden of dealing with such conditions. Professor John Ryle told me some years ago that "anxiety neurosis" was among the six most frequent diagnoses he had to make.

I believe that Dr. Bruce Pearson has collected data from nearly 1,000 out-patients in the general medical out-patient department at Guy's, and finds about 12 per cent. suffering from psychoneurotic conditions; this is still an important figure, but is lower than it otherwise would be because a certain number of people with bodily symptoms go directly to the Department of Psychological Medicine.

Every doctor should know at least how to diagnose such conditions. There is no doubt at all that in the past we have not only failed to treat such conditions, but that doctors have often actually manufactured them. Iatrogenic diseases are quite common. A patient with a symptom of purely psychological origin is given a diagnosis of "myocardial weakness" or "colitis" or "anæmia," and his condition of anxiety is fixed for years, with corresponding symptoms in the incriminated organs, unless the patient encounters someone who understands these things.

There are many cases, and these the more numerous in private practice, which can be cleared up satisfactorily in one, two or three sessions, and there are others, fortunately fewer, which will take many months of special treatment. The comparatively simple technique which suffices for the former can be employed by any intelligent doctor; it is a technique similar to that with which the war neuroses were so successfully treated by Dr. Hurst, and appropriately designated "vehement persuasion" by Dr. Blacker; but for the case that will not yield to these simple methods of treatment a technical and often, but not inevitably, time-consuming procedure becomes necessary, in the form of psycho-analysis or one of its derivative methods.

There is a story authenticated, I believe, by Dr. Hurst himself, that a letter was sent from France during the war, addressed simply to the "Hôpital des Miracles." It found its way to Dr. Hurst's hospital at Seale Hayne, and rightly so, for his demonstration that what the French called "reflex paralysis" was nothing more than a hysterical paresis curable in a short time by psychotherapy, will surely rank as one of the medical triumphs of the war. It is well known, however, that war neuroses arise out of a psychologically simple situation—a conflict between the standard of duty and the instinct of self-preservation. While peace is not lacking also in simple situations which some people cannot face, there is a smaller proportion than there was during the war, of the readily curable, because simply produced, types of psychoneurosis. Many ordinary psychoneuroses appear to have their main roots not in recent events, but in childhood or sometimes even in infancy, and these do require special methods—assuming that they can be cured at all. The special methods are intricate and require special study. There has, unfortunately, been a tendency to criticise them by those who have not made an adequate study of them, and an adequate study includes the practice of such methods. A parallel to this kind of criticism would be furnished if someone whose intellectual education stopped shortly after being introduced to the binominal theorem should attempt to criticise the theories of Einstein.

That there is no necessary direct relationship between length of treatment and results has been nowhere better shown than in a study made by Mrs. D. H. Hardcastle, psychiatric social worker in the Department of Nervous Diseases and Psychological Medicine at Guy's, on the results of treatment of various forms of nervousness in children. She compared the after-results at Guy's where treatment was short, with the results at the Child Guidance Institute in New York, where treatment was usually intensive and prolonged. The percentage of "recoveries" or "much improved" cases was virtually the same—70 and 73 per cent., but whereas at Guy's only 4 cases out of 57 had more than 10 visits each, at New York more than 50 per cent. had 30 visits each.

Statistics are dangerous in this field, for the reason that, as I have said, we are dealing with people and often with very complicated situations, and not usually with disease entities. With this reservation, however, the results in the treatment of adults that have so far been published from various sources show certain peculiarities. I have considered, in fact, whether there is not some constant factor at work and whether the probabilities are that in any sufficiently large series a certain fairly constant proportion will get well in any case. This tendency to spontaneous recovery is usually ignored in the claims made by psychotherapy.

I take, for example, a certain hospital we shall call "A," which was specially intended for psychoneurotics and the milder forms of mental illness generally, but where only the simplest forms of psychotherapy were used, and not very vigorously at that. The percentage of recoveries was as follows:—

Discharged "well"	30 per cent.
" "improved"	30 "
Total "well" and "improved"	60 "

If we go to the other extreme, and take the figures published by the Berlin Psychoanalytic Institute, where only the most lengthy methods (purely psychoanalytic and never less than six months in duration) are employed, we find the total recorded as "well" or "improved" as 62 to 66 per cent. The difference between 60 per cent. and 62—66 per cent. obtained by such different methods and in the first case probably over a shorter period of time is not significant, but the near identity of these two results is particularly interesting.

A clinic for in-patient treatment of psychoneuroses in this country records a 76 per cent. rate of recovery or improvement persisting after several years in anxiety psychoneuroses and hysterias, and a 50 per cent. rate for obsessionals. Another clinic, this time mainly for out-patient treatment by fairly lengthy psychotherapy, shows that the total of "well" and "improved" cases of anxiety states, hysteria and obsessional states, after three years, is 69 per cent. (on 193 cases). This is a clinic employing a large number of doctors, with a considerable diversity of psychotherapeutic method. This same clinic gives 67 per cent. of "well" or "improved" maintained after three years for its obsessional cases. Recently Lewis in a study of the prognosis of obsessional states, treated by various methods of which psychotherapy was only sometimes one, showed a *recovery* rate of 50 per cent., so that what might be contended here is that psychotherapy showed a 20 per cent. higher efficiency than a miscellany of methods whose total effect may be taken as non-specific.

The last two clinics can be placed in contrast with the Berlin P.A.I., in that on the whole they use shorter methods than the former, yet the results are at least as good; in fact, 76 and 69 per cent. respectively against 66 per cent.

Method.	*No. of Cases.*	*Percentage "Well" or "Improved."*
CLINIC A		
Suggestion, indirect	221	60
CLINIC B (Berlin)		
Psychoanalysis	268	66
CLINIC C		
Psychotherapy: persuasion and analytical psychology.....	—	76
CLINIC D		
Psychotherapy: persuasion and analytical psychology.....	193	69

The conclusion that *might* be drawn is that psychotherapy of a kind more technical than simple suggestion is better than suggestion alone, and that the most prolonged method has no special advantage over less prolonged but still "technical" methods of psychotherapy; in fact, if anything, it is rather less efficient.

The differences, if they are real (and I do not rely much on these statistics), are probably in the quality of the results. People treated merely by suggestion are only too likely to fall ill in future years, for they have learned nothing. Those treated by persuasion have learned something and are not so likely to collapse again. The presence of a neurosis often means that there has been a defect of character; the more complicated, but still quite short, degrees of persuasion can do much here, and make a recurrence so much less likely.

The most complicated form of all (analysis of some kind), *i.e.*, having to do with the repressed unconscious factors as well as with the more common factors with which persuasion deals—are theoretically the soundest from the point of view of the future, since they imply that, if carried to the extreme point possible, everything that can have gone astray has been looked at and revised and a new structure of character made possible. It is like knocking down the old building entirely and building another, instead of merely underpinning. But actually this is an ideal very hard to approach.

The real trouble is to know from the beginning which is which—which is to be regarded as the short case and which necessarily the long. I have had such a number of pleasant surprises, in finding that a case which looked a tough one got well quickly, that I have come to think that there is much to be said for assuming a very definitely optimistic attitude even in cases of doubt. Optimism cannot itself do the patient harm; it can do nothing but good, provided it is informed optimism, which is what, I take it, distinguishes the honest physician from the honest quack, and still more from the dishonest charlatan. The physician is optimistic while realising in his mind all the possibilities and being on his guard against them; communicating candidly any reservations he may have to make to the patient's friends, and only mentioning them to the patient later, if in his judgement events make it desirable to do so. The honest quack, not being properly educated, is ignorant of the possibilities; the charlatan (who is not necessarily unqualified) conceals them. Nowhere is this enlightened optimism more important than with the psychoneurotic patient.

Optimism is justifiable also on the following grounds: first, the majority of psychoneurotic conditions seen in general practice are curable in

a short time; there is, therefore, a statistical presumption in favour of a short course of treatment. Secondly, it is very difficult to set up satisfactory criteria that will tell us when a given case is readily curable or not—or whether it is curable at all. I have cured a psychoneurotic anxiety state of thirty years' standing in one hour, much to my surprise. The duration of the symptoms won't serve as an absolute criterion. I have known a hysterical headache resist intensive treatment by different people for years; on the other hand I have known a most ominous-looking syndrome—for example, an obsessive compulsive psychoneurosis—in a schoolmaster who felt compelled to don a new change of clothes each time he came home from school, clear up immediately on his resigning from his job. Even symptoms that are usually classed as psychotic (rather than psychoneurotic) may disappear most unexpectedly when some change occurs in the circumstances. I remember, while I was assistant to Dr. T. A. Ross at the Cassel Hospital, seeing a young man, in a schizophrenic psychosis, in which he was apathetic and took no interest in anything but self-accusatory voices which he hallucinated, who recovered when he confessed to his parents an act of his of which he felt they would disapprove.

The fact is, that in psychological medicine you are not dealing with diseases, but with people, and you can only get an idea of how they are likely to respond to treatment by sizing up the whole situation and assessing their symptoms in the light of their previous history, their present condition, and their personality. The more the symptoms seem to be dependent on the contemporary situation, the more hopeful the prognosis. On the other hand, to have symptoms arising out of a situation that does not appear very difficult suggests a poor sort of personality—" poor stuff " which may easily collapse again. Certain peculiar facts of upbringing or constitution may determine a peculiar and ominous-looking response to a contemporary situation, *i.e.*, in the schoolmaster and in the young man I have just mentioned; so that an unusually unfavourable impression is formed, because such symptoms usually herald a long or even incurable illness. The more the symptoms appear to depend on the early history, the more prolonged is the treatment likely to be; the more the early history is one of unfavourable environmental influence, and the less it is a matter of the unfolding of an inherently unstable temperament, the better.

As regards personality, if we include intelligence in this, then there is no doubt that an intelligent patient is a much better psychotherapeutic risk than a person with average or dull intelligence. This, however, works both ways, and the remark I have made applies rather to suitability for certain forms of psychotherapy, especially the more recondite forms. Average and dull intelligence can, on the other hand, be more readily influenced by suggestive methods of treatment, of which the bottle of medicine is the best known and the simplest. It is a mistake, however, to suppose that intelligent people are not also very suggestible. Nothing else (except an explanation which would be distasteful to everyone concerned) will explain the *penchant* of the better educated classes of this country for irregular and ill-qualified practitioners of all kinds.

Not least of the personal assets of the individual is the quality which might be described as " keenness." Some people have good minds in the sense of intellectual dexterity, but a really good mind, at least for the purpose of benefiting from psychotherapy, is one that is not only dexterous, but " pointed," which has force behind it, including a desire to get well, even at some cost of effort, and some sort of aim in life beyond the desire for health itself. I think it is for this reason partly (in addition to youth and hopefulness) that I find medical students and doctors quite the most hopeful class of patients that I see. Their education has also, I believe, something to do with it. A medical education, for all its faults, is perhaps the most realistic in the world. And psychotherapy is largely concerned with getting people to be realistic, to drop their soft and convenient views of the world, which perhaps they have imbibed in their nursery, and, on the other hand, to abandon their bogeys of superstition and authority, which they may equally have acquired there, and to get close to the world as it really is.

Education, of course, is more than knowledge; it is also a discipline of sorts, and I find that those who have been brought up in an environment where there is a feeling for discipline of the right kind—self-subordination, respect for reasonable and kindly authority, and so on—do better even in their several kinds of breakdown, than those who have not had these advantages. A medical training involves this kind of discipline to some extent.

As regards symptoms, these might be arranged in this order of ready curability (excluding symptoms of what are usually called " psychoses " or " major mental illnesses " or insanity).

1. Fatigue and exhaustion; and in general all bodily symptoms, *e.g.*, palpitation, not adequately accounted for by physical lesions or demonstrable physiological conditions and associated with uneasiness of mind, which may not be at all obvious.

2. Hysterical symptoms in the sense of paralysis or disorders of the special senses such as blindness, or of the vegetative functions such as anorexia.

3. Depression of spirits, if not associated with a family history of similar illness or with delusional ideas.

Among the more difficult symptoms taking a longer time to cure are: (1) phobias of certain specific situations, *e.g.*, of trains, of closed spaces and the like; (2) obsessions and compulsions; (3) stuttering (in an adult and existing since childhood); (4) impotence (if not clearly due to anxiety). But there are always pleasant exceptions to the anticipated difficulty.

These are the main considerations which have to be weighed in deciding whether a psychoneurotic condition is likely to be short or long, easy or difficult, in cure. Even with this kind of information, however, in his hands, an experienced psychotherapist will still confess that there is nothing like trying, and that it is impossible to be reasonably certain about success or failure until treatment has actually been attempted. Some of the most unlikely-looking patients are, I find, occasionally the most successful. There is this also to be said in favour of trying a shorter method —that when a short or reasonably short method does not succeed, it at once raises the question whether any method will succeed at all. On the other hand, there are certain conditions, such as phobias, compulsions and homosexuality, which the short methods of persuasion and suggestion do not begin to understand. To use persuasion and suggestion in these conditions is equivalent to bringing simple arithmetic to bear on the problems of the calculus.

There is also the old question, "What is cure?" Dr. Hurst quite rightly adduces the treatment of anorexia nervosa by simple persuasion as an example of the triumph of the simpler methods. There is no condition which is oftener misdiagnosed and maltreated than this. These unfortunate young women are diagnosed as being anæmic, as having gastritis, given special diets and injections of this and that; or if their condition is recognised, they are treated on the theory that they simply lack appetite. Understanding, persuasion and the right *régime*, without any medicines or injections of any kind, is the best treatment. They recover from the anorexia, but do they recover from their illness? I seem to see a fair number of young women who have had an illness of this sort, have recovered completely their weight and appetite, but who have remained neurotic.

The important things for a general practitioner in the treatment of psychoneurotic conditions in our present state of knowledge are:—

(*a*) To be able to recognise a psychological condition when one sees one, remembering that that may be as often as one in three of every case one sees.

(*b*) To know how to handle it so as not to add fuel to the fire of psychoneurosis, remembering that a doctor's prestige is important for good or ill, and may "fix" a psychoneurosis if the wrong advice is given. Unnecessary operations are obviously bad, but it is not sufficiently realised that a mistaken diagnosis can do almost as much damage.

(*c*) To attempt the shorter forms of treatment, and if these, judiciously applied, are unsatisfactory, to refer the case to someone who has both the special knowledge and the time for the longer forms of treatment, if necessary.

Correspondence

Laying Down The Law

To the Editor of the GAZETTE

SIR,—I have read with dismay the article on Associated Ocular and Oral Disease which you published in the January 4th issue, though I take comfort from the fact that it was a paper read before dentists and opticians (what is an "ophthalmic" optician?) only, since it is likely to do less harm before such an audience than before a medical one.

The *Gazette*, Sir, is read largely by the unqualified and the newly qualified student of medicine, at Guy's or elsewhere, and I submit that a careful editing of all didactic matter appearing in its columns is essential for the right progress of medical knowledge. It is not to be expected that the opinion of a dental surgeon upon matters ophthalmological could be regarded as in any way authoritative, and to refer to many statements in this article as ill-informed or unorthodox would be to understate the case.

A detailed dissection of the article would be tiresome and unnecessary; suffice it to say that an article which gives local sepsis as a cause for primary glaucoma, which gives "soft cataract" as a common manifestation of congenital syphilis, which gives the order in which diseased teeth most commonly affect the eyes, which gives a devitalised tooth as a cause of homonymous

hemianopia—such an article, Sir, I submit, is unfit for publication in such a journal as the *Gazette*.

May I suggest that in cases of doubt an article should be submitted before publication to a qualified (in every sense) and orthodox referee? This letter may be trusted to put readers on their guard against the wholesale acceptance of the information contained in the particular article under consideration.

Yours, etc.,

FRANK W. LAW.

36, Devonshire Place,
W.1.

[EDITORIAL NOTE]

The Editors do not hold themselves responsible for the manner in which correspondents express their views. With regard to Mr. Law's criticisms we would point out :—

1. Mr. Krusin did not say that soft cataract was a common symptom of congenital syphilis; he said that it was a common eye manifestation. Whatever the accuracy or otherwise of this observation, Mr. Law's criticism is itself inaccurate.

2. For Mr. Law's confusion of local with focal sepsis, see below.

3. The order in which diseased teeth might give rise to eye symptoms was merely quoted by Mr. Krusin from the statistical results of Villard (Reference: Villard—*Medecin*, January, 1935.)

4. With regard to the relief of an homonymous hemianopia after removal of a devitalised tooth, Mr. Krusin merely quoted a case from the notes of Murphy. We have been assured by an authority that such a case, though rare, is not unique in the literature. (Reference: Murphy—*E.N.T. Monthly*, July, 1934.)

To the Editor of the GAZETTE

SIR,—On reading Mr. Law's letter of comment upon my paper on Associated Ocular and Oral Disease published in the *Gazette* recently, there came to my mind the famous lines of Shakespeare, "Who is Sylvia, what is she," etc., for the very matters at which he cavils are quoted verbatim from articles, references to which are given, by Hunter Scarlett, Murphy, Villard and Franceschetti, and are matters with which I merely expressed myself as being in agreement.

Does Mr. Law pit himself so vituperously against the *obiter dicta* of these familiar names?

The criticisms levelled at certain individual statements are clearly based on Mr. Law's confusion of terms. When I write "focal" I do not mean "local."

The *Gazette*, Sir, is the mirror in which opinion may be expressed and discussed before the student and the practitioner, and not that into which didactic statements or personal invective should be flung without adequate consideration of the facts. Mr. Law does not appear to have taken the trouble to have read the article sufficiently carefully to have acquainted himself fully with its contents.

Yours, etc.,

F. S. KRUSIN.

24*a*, Portland Place,
W.1.

Ice Hockey Club

To the Editor of the GAZETTE

SIR,—It may be of interest to your readers to know that the Ice Hockey Club which has been formed at the Hospital is receiving the keen support of many students. Mr. Slesinger has kindly become our President; R. J. Simms is our Manager.

We have succeeded in getting two organised practices a week at the Empress Stadium, Earl's Court. Although it is our first season we hope to be able to play in the near future St. Thomas's Hospital, the Marlboroughs (a London team), the second teams of Oxford and Cambridge, and other amateur teams.

Yours, etc.,

J. W. LEE,
Hon. Secretary,
Ice Hockey Club.

Guy's Hospital,
S.E.1.

THE COLLEGE

To the Editor of the GAZETTE

SIR,—If a healthy discontent be the seed of reform, "Carfax" is to be congratulated on voicing the dissatisfaction which the dwellers in, and users of, the College feel about the inadequacy of the arrangements for feeding and recreation which that institution affords. The only part of his letter with which I disagree is the tone in which he champions the underdogs against the callous indifference of the authorities; here I think he emulates Don Quixote and the windmills. The authorities are on his side, at least so far as the officers of the Students' Club are concerned and for whom only I am entitled to speak. We, as readily as he, wish to make the College a place where an atmosphere of comfort prevails, but it is unfortunately a long trail which leads from aspiration to performance.

On two points I can reassure " Carfax." In the first place those who are concerned with the administration of the College have not had their senses blunted by the familiarity which stifles criticism, and they are alive to the many defects of the present arrangements. In the second place a sum of money has recently been put at the disposal of the Students' Club which will effect great improvements in the amenities and quality of the College Reading Room.

Having achieved this we shall press on to the other improvements which, within our means, we shall be able to perform.

Yours, etc.,

H. J. B. ATKINS,

Hon. Secretary,
Students' Club.

Guy's Hospital,
S.E.1.

To the Editor of the GAZETTE

SIR,—We, the undersigned students, wish strongly to support your editorial in the last issue of the *Gazette* and to associate ourselves with the criticisms that you make of the College accommodation, as well as with those of your correspondent.

When we first came to the Hospital we *were* appalled by the state of the College, but we were ignorant of most of the mechanism of the Hospital and used it, as it is, without criticism. Now that the lead has been given, we feel it is incumbent upon us to follow up and emphasise this need for better surroundings and more comfort in our leisure periods.

The type of work we do needs intensive concentration. To counterbalance this it is essential that we have periods of relaxation. But no! During the first " rest " period—at lunch-time—we find, in the College luncheon and reading rooms, an uproar and crushing of many people, an unpleasant decoration of dingy paint, and photos from the last century, and comfort of the kind usually associated with station waiting rooms. There is a lasting effect on our work and lives.

Without a doubt the whole place should be rebuilt, but that will take time (or would it take so long? We remember how Nuffield House sprang up almost overnight). We are here *now*, working!

All kinds of suggestions have been made for the extension of the accommodation as it is at present—using the Gymnasium as an extension of the " Spit "—making three floors instead of two where the Reading Room and Spit are now situated—extending the College back from the washing rooms, and so on. Someone more competent at the job will assuredly offer the most reasonable solution—and one that can be carried out immediately.

We follow up the editorial " Let's stir them up !" with—Let's have the improvements quickly !

Yours, etc.,

C. H. Blockley.
P. I. Rhodes.
L. A. Quick.
R. A. Zorab.
R. F. Hoar.
E. J. Martin.
N. Midgley.
D. Carter.
R. B. Clayton.
H. A. Kreiser.
J. C. Houston.
A. L. Rushforth.
M. W. Wheate.
A. J. Rogers.
E. W. Crews.
J. T. Jenkins.
F. H. Glass.
J. H. Smart.
E. Smith.
M. Wilks.
J. Jones.
W. B. B. Southwell.
D. D. Stalford.
S. G. Miron.
D. L. O. Walters.
J. H. Flitcroft.
J. A. Dossor.
W. T. Athey.
G. Bird.
Clem E. Solomon.
A. Forbes.
G. F. Daws.
P. D. Kolesar.
D. Baumann.
R. A. E. Keeler.
C. A. K. Bird.
J. W. Truscott.
W. A. Parsons.
D. L. Rugg-Easey.
J. W. Lee.
E. K. Breakspear.
N. W. R. Lucas.
J. F. Swan.
P. H. Denton.
R. Hudson Evans.
T. E. Ooi.
J. H. Thomas.
J. G. Stubbs.
J. M. French.
G. G. Gwyn Rees.
J. H. Sarginson.
J. R. Edgson.
G. Teall Hammond.
J. M. Warner.
J. Symons.
P. H. Crampton.
K. A. Hussey.
C. A. Chaundy.
D. R. Finch.
S. E. Burt.
E. R. Burt.
W. M. Glen.
I. G. Horan.
D. C. J. Constable.
G. F. Rees.
H. D. Lamb.
J. Tobin.
D. M. Cushing.
B. D. Johnson.
R. Wadia.
G. O'Gorman.
C. H. Dunn.
R. S. Stevens.
J. B. Gayes.
J. D. B. Perkins.
B. Alhadeff.
J. Grierson.
J. Erulkar.
D. P. Finnegan.
P. Baxter.
H. Stoll.
A. G. Dabbs.
M. Shaw.
P. H. Staple.
C. Sumsawaste.
W. G. Cross.
A. T. Vale.
R. D. Plowman.
J. A. Pearmund.
A. P. Davies.
J. P. L. Goldman.
R. C. Jones.
H. A. Woodward.
D. A. Clough.
S. McCallin.
P. E. Jeffery.
L. G. Morgan.
J. B. Wilkes.

H. P. Brown.
M. A. Shillin.
C. H. Phillips.
S. W. Hinds.
M. L. Hudson-Evans.
H. Greenburgh.
L. E. Smith.
T. G. Pritchard.
W. A. Shearman.
E. du Toit.
A. Stone.
N. F. Clarke.
A. R. Abbey.
Chas. F. H. Bulow.
J. O. Pierce.
F. L. D. Young.
B. Coffey.
F. G. Stoddart.
T. H. Spencer Smith.
N. L. Rowe.
Edward L. Sutton.
N. Cripps.
D. L. Goodridge.
R. G. Archer.
Wm. Hooper.
W. Burgess.
F. W. A. Campbell.
F. E. Barlow.
F. R. Johnson.
M. Archibald.
F. B. Gamblen.
D. F. Dennis.
N. Hall-Jones.
R. P. Hancock.
F. G. Hancock.
B. F. Vellender.
B. Leton.
D. B. Sedgwick.
J. H. French.
T. L. Weston.
J. L. Hollington.
P. Ellis.
D. Tudor-Williams.
D. Bugg.
R. Howgate.
G. C. Sprigings.
M. E. Gascoine.
V. S. Sams.
R. W. Marston.
Paul Borghys.
S. W. Guilding.
H. B. Shay.
R. E. Hunot.
F. Wray.
T. N. Praat.
E. C. Lewis.
A. H. Bell.
I. W. Ross.
M. K. Burt.
Wm. F. Gibb.
G. C. Coe.
L. G. W. Dewey.
E. P. O. Watson.
H. J. Voss.
F. J. Edgell.
D. C. Jackson.
D. Shannon.
G. Havelock Pearson.
D. A. Hamilton.
T. C. Thorne.
K. W. N. Palmer.
R. West.
F. R. Turner.
E. J. A. Needham.
W. J. Head.
G. C. Price.
O. C. Fung.
E. R. Davies.
D. E. Meredith.
W. J. Howard.
N. S. Harris.
P. S. Clarke.
G. W. Dorr.
S. Rae.
R. K. Roberts.
G. E. Clarke.
O. B. Balean.
Hugh Wormald.
J. C. Bulstrode.
E. Williams.
E. H. Williams.
M. McNeil.
P. H. Meldrum.
D. W. Mayman.
R. Franks.
C. St. Cin.
O. G. Lane.
M. K. C. Shrapnell.
C. W. Kesson.
F. N. Glover.
A. J. Drew.
W. F. J. Weston.
C. K. Cole.
K. O. Rawlings.
H. A. Rowley.
T. G. Evans.
W. H. Spencer.
J. A. E. Watts.
H. A. Thomas.
D. M. Douglas.
C. Halamandres.
J. A. Sutton.
W. R. Dyke.
J. H. Halliday.
P. E. Marshall.
L. A. Wakeford.
G. M. Whittall.
S. Badger.
H. J. Nicholls.
A. M. Pollard.
H. D. MacPherson.
M. Edwards Davies.
G. James.
J. E. Tudor.
C. F. Hawkins.
John H. Capon.
H. F. Lunn.
J. M. Weston Wells.
R. R. Darracott.

Guy's Hospital, S.E.1.

[We have received numerous other letters on this subject which we hold over owing to lack of space.]

To the Editor of the GAZETTE

SIR,—What is the meaning of this sudden campaign which the letter of "Carfax" seems to have started?

It's all very well for old Guy's men to breeze into the Club and expect to find it as they *remember* it. I shouldn't be a bit surprised to find that it was just as bad in the days of "Carfax" as it is now, for after a lapse of years it is well known that the mind tends to retain idealised memories of places which they frequented in youth.

Those who find the Club uncomfortable, or otherwise not to their delicate tastes, should do what many of us do at the present day, and avoid it. The present curriculum does not leave any time to be wasted in "pleasant intercourse with our fellows," if we wish to qualify as soon as possible and get into practice. Medicine is no longer the leisurely profession that it was in the spacious days of Queen Victoria and King Edward, before the introduction of aseptic surgery and anæsthetics.

Yours, etc.,

CYMRU AM BYTH.

[Our correspondent is under a slight misapprehension as to the state of medical knowledge in the Victorian and Edwardian eras.—*Ed.*]

To the Editor of the GAZETTE

SIR,—Thank you, Carfax.

Well do I remember being escorted to the College when I first visited the Hospital and being appalled at the place. After mentioning this to my father, who regaled me with ancient stories of smoking concerts in the "Spit," with a barrel of beer in the middle of the floor, of Gray's Inn, the Residents' Room, and of the never-to-be-forgotten Externs' Room, I was pleased to put up with a place that reeks of tradition.

But as I grew older, even when the Catering Club improved the food, the place always had a morbid atmosphere to those of us who still used it.

The Club and its buildings are useless for the purpose that they once served, and rumours abounded in 1932 of an L.C.C. ban on it.

There are difficulties, I know, but when one looks back at the years since the war, it is found that the Medical and Dental Schools, the Hospital Wards and Surgeries, the Massage building and the Nurses' Home have improved beyond all recognition, and all the student gets is more work and an uncongenial, over-crowded club.

Lyons, the A.B.C., the Creamery, the Hops, the Ship & Shovel, the Grapes, the Bridge House* and many other public houses held between mid-day and two in the afternoon qualified and unqualified men eating and trying to rest, and all these places reap the harvest which should belong to the College.

Arguments are brought forward that the place is not worth improving, as it is to be pulled down, and that it is an unhealthy district, and if rebuilt would not pay its way. These ideas existed in my first term and answer themselves.

Guy's students and practitioners set such a high standard in their professions that no one would like this to be lost through living in uncongenial surroundings, and the only argument in favour of the College is that, being so uncomfortable, it is more comforting to work in the Hospital.

Conditions have improved around Guy's since slum clearance, motor road-cleaning, lessening of horse traffic, and the abolition, by the police, of razor gangs and street fights, that the district is becoming quiet and pleasant to live in.

I am sure that the powers who rule us have brought the Hospital up to a very high standard, that the Nurses and their Association have seen to their own comfort, and that it only needs a little life on the part of past and present members of Guy's to awaken those, to whom charity is a gift, to a need that for years has been a crime.

Yours, etc.,

GEORGE G. ELLIS.

47, High Street,
Aylesbury,
Bucks.

**Editorial Note.*—Also the George, the Miller, the Tabard, the Crown, the Anchor, the London Bridge Tavern, and the Blue-Eyed Maid.

Hospital Information, etc.

Pass List

UNIVERSITY OF OXFORD.
M.B., B.Ch.
December, 1935.

Materia Medica.

E. M. Poulton. R. Y. Taylor.
T. H. Shire. W. E. Young.

Pathology.

W. F. Dunham. T. H. Shire.

Forensic Medicine and Public Health.

W. W. Gilford.

UNIVERSITY OF LONDON.
SECOND B.D.S. EXAMINATION.
PART I.
December, 1935.
Pass.

A. G. Beaton. P. H. Hopkins.

Anatomy and Physiology.

J. W. Lee.

Papers by Guy's Men

D. Denny Brown and Another. An investigation of the nervous control of defæcation. *Brain*, 1935, lviii, 256.

R. Brooke. An improved technique for the introduction of radium needles in the treatment of carcinoma of the breast. *Brit. Jour. Surg.*, 1935-6, xxiii, 501.

H. A. H. Harris. Rupture of the long head of the biceps brachialis. *Brit. Jour. Surg.*, 1935-36, xxiii, 572.

Appointment

J. U. Human, appointed Honorary Anæsthetist to St. Mary's Hospital for Women and Children, Plaistow, E.13.

A. E. Jones, appointed Medical Officer of Downside School.

Changes of Address

A. E. Jones, St. Woolstan's, Stratton-on-the-Fosse.

J. B. Blaikley, 55, Harley Street, W.1, *Langham* 4150.

Births

NAPIER.—On Wednesday, January 15th, 1936, at 27, Welbeck Street, to Laura (née Tilley), wife of F. J. Napier, of The Dool House, Littlemore, Oxfordshire —a daughter.

RATCLIFF.—On January 13th, 1936, at 42, Western Elms Avenue, Reading, to Joan (née Brierley), wife of R. A. Ratcliff, M.D.—a son.

EDS. { P. W. C. / M. A. P.

GUY'S HOSPITAL GAZETTE

A Journal of Medicine, Surgery, Dentistry and Hospital News.

PUBLISHED FORTNIGHTLY.

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PASSIM

THE College is almost the only subject on which we have ever written in these columns and met with a response. This we take to be an index of the urgency for improvement of the present depressing conditions. Since we published last week a letter signed by two hundred and twenty-seven people (we could detect only one impostor in the list; the name of Mr. O. Wilde had about it an atmosphere, like the College itself, a little Victorian) and suggested at the same time that some old Guy's man with energy and a little leisure might come forward to help in organising a fund for the raising of a sum sufficient to rebuild, we have had just such an offer. This is a step gained, nor have we ourselves been dilatory.

The word "committee" must strike chill on the heart of any ardent reformer. To any Guy's man it may strike more than chill. Have we not found difficulty before in that the whole Hospital seems to be run by a series of committees, each of which seems to differ from the last chiefly in name and the capacity in which it serves? It often has seemed as though the same question is referred by the same people to themselves, but under other names and at other times, and even, perhaps, referred back to themselves some months later, rather as Pooh Bah administered in far-off Tokyo. Committee! The word is redolent of green baize and new pens, and unused blotting paper and ash-trays, its very sound produces a stifled yawn. But the committee difficulty is not one which is peculiar to our own institution, and it has to be faced. Do not sigh, readers, when we tell you that this matter of the College has been taken up by two committees. It is the best that can be done.

Now a word, again, on patience. It is important, if anything is to come of this project of yours and ours, that we should have the co-operation of the authorities. The scheme must, therefore, be put before them. The question arises, by whom? Well, we can't go and you can't go, so it seems, dear readers, that it must be officially done. And that means committees. The condition of the Smoking and Dining Rooms in the College is the direct concern of the Students' Club Committee. The Students' Club Committee is an offshoot of the Clubs' Union Council, and it would seem that if we could get the support of the Clubs' Union Council, then that would be a big step gained in bringing the matter officially before the attention of the Governors of the Hospital, whose goodwill is essential if the scheme is to succeed.

We have been in touch with the Students' Club Committee, and a letter is being sent from that body to the Clubs' Union Council. We very much hope that they will look upon our project with a favourable eye; it seems a reasonable one to us. We received a letter last week from a Guy's man who left the Hospital in 1895.

"The *Gazette* is quite interesting," it ran, "about the Smoking Room. It seems just as when I was there, and I can remember how dismayed I was."

Well, we must pray for support from the Clubs' Union, and should they prove on our side, it remains only to hope that they, in their turn, will invoke the Governors' blessing. In the meantime, let there be patience but not apathy. We have already secured the services of someone willing to organise a fund, of what further results may follow we will apprise you.

YET another step has recently been taken towards a more close co-operation between ourselves and the L.C.C. hospitals. The Governors of the Hospital have come to an arrangement with the London County Council by which certain cases of head injury and certain fracture cases may be transferred hence to neighbouring infirmaries.

Some very welcome relief of the congestion too often present in the take-in wards—particularly Evelyn—may thus be effected. Such a relief in Astley-Cooper, Cornelius and Evelyn would be reflected in an increase in the beds available for general surgical cases, and should, to a considerable extent, expedite and render easier the admission of doctors' cases during the take-in week.

The type of case which may be so transferred is, of course, to be strictly limited, and subject to certain regulations. Cases of concussion and minor head injury may only be moved when there is no possibility of damage during an ambulance journey, and only after the Resident Surgical Officer, or his deputy, has communicated the details of the case by telephone to the Superintendent of the L.C.C. Hospital concerned. It strikes one at once that to obtain the services of the Resident Surgical Officer at any time in a busy week may be a matter of considerable difficulty. It seems likely that to secure the deputy might be easier, but as to what is meant by the term "deputy" there is no information. One presumes that this duty will fall on the take-in house surgeon. Except in exceptional circumstances only those fracture cases which have received nothing but emergency treatment (and whose general condition permits travel) shall be transferred. A transfer at any later stage would not only break continuity in the treatment, but would inevitably raise also the question of responsibility—a question raised more often in these particular types of case than in any others. When it has been decided to transfer a case which has undergone reduction and permanent splinting in the ward, this shall only be done when the surgeon responsible has seen it and given his consent.

Those who deprecate the gradual encroachment of the L.C.C. Hospitals on our practice may take exception to this further advance. On the other hand, it would seem that a close co-operation between ourselves and the London County Council is desirable, and that, short of rebuilding, it is the only way in which we can maintain an adequate supply of beds for the treatment of acute cases.

▭

WE congratulate Professor A. Bulleid on being the first Guy's dental surgeon to deliver the Hunterian Oration at the Royal College of Surgeons. His subject was "The Assessment of Dental Sepsis as a Factor Influencing Medical and Surgical Procedures." This is the second occasion in a month on which this honour was conferred on a Guy's man; as we announced in our last number, Mr. C. H. Fagge, consulting surgeon to the Hospital, has also been asked to deliver an oration. This, on the subject of "John Hunter to John Hilton," took place on Friday, February 14th.

▭

WE publish a letter from Sister Theatres, Miss E. Hughes, in which is pointed out the difficulty that has hitherto existed for Guy's men in practice in obtaining the professional services of Guy's nurses. Miss Hughes intends to organise a co-operation by which nurses, all of whom have received their training at Guy's, can be secured. We feel confident that such an organisation will meet with the support which it deserves.

▭

AT the time of going to press the Residents' Play is starting, and by the time that this number appears before the expectant world it will be over. Those diverse emotions which, one supposes, have for years troubled the bosoms of the Staff behind their immaculate shirt fronts, may by now have, at any rate partially, subsided. That slight quickening of the pulse with which the surgeon or physician looks to see whether he is or is not among the caricatured on the programme will have given place to a steady beat of satisfaction at having been omitted or to a sustained rise in rate until the memory of injustice fades.

▭

WE would again remind readers that the Musical and Operatic Society's production of "Princess Ida" will take place early in March. We publish full details elsewhere in this number.

▭

THE Departmental Committee appointed to sit on the Coroners has now published its report. We are glad to see, among its recommendations, that Mr. Eason's plea against the practice of some coroners of using their official position to censure and criticise a hospital staff on professional matters has been included.

In the past, riders of responsibility and animadversions by coroners have been liable to cause grave injustice to staffs of hospitals who, under the present law, are permitted no means of redress. As indicated by its very name, the procedure of an inquest should be critical only in that it is an inquiry.

A clause that strikes nearer home is No. 12 in the Summary. Here Assistant House Surgeons and Out-Patient Officers may read with due alarm that only professional pathologists whose names appear on the special Home Office list should perform post-mortems for inquests. The exciting associations of the clanging of the bell at the Front Surgery and the B.I.D. appear to be in jeopardy.

Optic Atrophy

A Clinical Lecture delivered at Guy's Hospital by F. W. Law, Esq., F.R.C.S.

GENTLEMEN,—It is my endeavour to-day to put before you the subject of my lecture in a manner which shall be of permanent value to you in your studies in the two largely overlapping fields of ophthalmology and neurology. A subject of intense interest and first-class importance, it suffers still from a classification so simple as to be ludicrous, so unsatisfactory as to be positively misleading. In attempting to follow my preliminary remarks on ophthalmoscopic appearances and anatomical divisions with the skeleton of a more nearly satisfactory classification, I would acknowledge my indebtedness at the outset to Leslie Paton, whose natural abilities, combined with a vast experience at the National Hospital for Nervous Diseases at Queen Square, have made him an acknowledged authority upon this subject.

First let us consider the ophthalmoscopic appearance of the central region of the normal fundus oculi. You are all doubtless more or less skilled in the use of that convenient—that most unfortunately convenient—instrument, the self-luminous or electric ophthalmoscope. I would remind you forcibly that this is a clinical instrument in the strictest etymological sense—that is to say, a bedside instrument; and this by virtue of necessity or convenience only, and not from choice. It is to my mind a most unfortunate state of affairs that the indirect method of ophthalmoscopy is falling so completely into disuse, since there is no doubt at all that certain fundus conditions are much more readily and satisfactorily examined by this means than by the direct method, and a rapid comparison of the two fundi, so often desirable, is so much more easily carried out. I would go farther, and say that I am prepared to agree with a statement of a senior colleague to the effect that the very introduction of the electric illuminant even for indirect examination is a disadvantage, since the true fundus colourations were more accurately revealed by the use of the old gas flame; but while I can claim to remember the time when the indirect method was much more extensively used, and taught, than it is to-day, I am afraid that I must take the latter contention on trust, the use of gas as an ophthalmoscopic illuminant being definitely superseded by the time that such examinations began to interest me.

The objection to direct ophthalmoscopy is by no means purely academic, and there are pitfalls which I would like just to indicate to you, for your avoidance. Refractive errors and medial opacities —*i.e.*, diminutions in transparency of cornea, aqueous, lens or vitreous—may seriously affect the appearance of the fundus on direct examination, and give rise to mistakes in diagnosis. The first, as sources of error, may be largely avoided by always adopting the principle of beginning your examination with the highest plus lens behind the sight-hole of your ophthalmoscope, and reducing the strength of this progressively while still examining the eye, going on to the minus lenses if necessary. In this manner successive planes of the globe are thrown into focus, starting with the anterior ones, and that on which the retina and optic nerve lie must be focussed by this means. The high hypermetrope and the high myope can usually be diagnosed by the glasses which they remove upon your approach with the ophthalmoscope; the latter present by far the most difficult problem, and it is always advisable to hold the ophthalmoscope very close to the eye both of the patient and of yourself, in order to get a good view; alternatively, the relatively unpractised examiner may get the best view by leaving the patient's glasses on and examining through these—with, of course, no lens behind the sight-hole of the instrument.

It will be appreciated that, by adopting this method of racking through the lenses of the ophthalmoscope, an opacity of the media which would otherwise prove an apparently inexplicable bar to a clear view of the fundus, will be comparatively readily picked up. There is no need to dilate upon the implications of these warnings; It will be easily understood that, for instance, a diagnosis of papillitis or papillœdema must not be made from the appearance of a "blurred disc" when the blurring is due to some such optical cause as I have described.

THE NORMAL DISC

The general colour of the fundus oculi is a bright red, due to reflection—not from the retina, which, as far as we know, is a transparent structure—but from the choroid, which is almost entirely composed of blood vessels.

The optic disc is much paler than the rest of the fundus, and the colour may vary considerably within the limits of normality. One occasionally comes across a very pale disc which one would be prepared to associate with a definite degree of optic atrophy and visual loss, to find that that is no evidence of this latter; similarly, a proved

atrophic disc may retain a reasonable degree of colour. The disc is seldom accurately circular; the edges are usually very well defined, if a little irregular. Occasionally, especially in older patients, a white area may partly or wholly surround the disc; it is to be noted that the disc has the normal colour, and that this pallor is quite outside it—indeed, it is due to the fact that the pale sclera is seen where the choroid and pigmented layer of the retina do not quite reach the disc. Again, the retinal pigment is not uncommonly heaped up at the edge of the disc in one place or another, giving rise to visible isolated patches of pigment at the margin.

The disc is seldom uniformly pink. In the first place there is a depression in its centre, of varying depth and varying diameter. This is the physiological cup, and because there are less nerve fibres in this situation, the white connective tissue fibres of the lamina cribrosa are more easily seen here, so that the central part of the disc is usually paler than the periphery, according to the depth of the cup. When it is very deep, the actual foramina, or meshes, of the lamina are seen as grey areas on the white ground. In the second place, fewer nerve fibres (and let me remind you of the obvious fact that these are non-medullated fibres) cross the temporal side of the disc owing to the anatomical arrangements holding there; and this tends to make the temporal side somewhat paler normally than the nasal. This opens the door to that enormous playground, the diagnosis and discussion of "temporal pallor"—a real pitfall, and a state of affairs to diagnose (or at least from which to draw any conclusions) on very rare occasions only. Finally, the disc of the old is usually paler than that of the young, and the disc of the myope paler than that of the hypermetrope.

THE ATROPHIC DISC

Bearing in mind these variations from the normal, then, we may begin to consider the appearance of the atrophic disc, a condition characterised by pallor and changes in the appearance of the blood vessels. When no antecedent papillitis or œdema has occurred, the atrophic disc usually appears greyish or paper-white; the lamina cribrosa is clearly seen, and the edges of the disc are sharply cut. The vessels usually appear normal or only slightly contracted, and the retina appears normal. There may be some increase in the central cup of the disc, which may be referred to as atrophic cupping, in contra-distinction to physiological and glaucomatous cupping. In cases where the atrophy is due to a cause acting distally to the disc—in the course of the nerve which I shall later define as retinal—the colour is typically yellowish and waxy in appearance, and the vessels are markedly constricted.

After papillitis the typical appearance, on the other hand, is that of a disc whose cup is filled in by fibrous tissue, the result of organisation of the exudates which have been produced. This fibrous tissue frequently extends over the edges of the disc, causing them to appear blurred on ophthalmoscopic examination, and it may extend also along the vessels, causing a thickening of the perivascular sheaths. Contraction of this tissue causes constriction of the vessels; post-inflammatory changes in the form of pigmentary disturbance and organised exudate may appear in retina and choroid. At the risk of being tiresome I must refer again to the considerable variations from the normal, and the simulation of atrophic conditions.

CLASSIFICATION OF THE OPTIC ATROPHIES

So much for the normal disc and its variations, and the appearance of the atrophic disc. I must now refer to the old classification of the optic atrophies which unfortunately still persists in the text-books. It is the custom to refer to an atrophy in which there is no evidence of an antecedent papillitis or papillœdema as "primary," and to call one where such evidence is visible "secondary" or "consecutive." I do not propose to waste your time by entering deeply into the reasons why this is a thoroughly bad classification. It is enough to say that a papillœdema may subside and leave a disc exactly resembling one which has suffered so-called primary optic atrophy, and that it is inconsistent to distinguish between two inflammations of the nerve causing optic atrophy, one of which was situated a few millimetres further forward than the other. Again, a papillœdema may be followed by an atrophy, and yet not have been its cause.

The optic nerve is not a peripheral nerve, but a tract of the brain, comparable on anatomical, physiological and embryological grounds. Atrophic changes may be induced in it by inflammation, trauma, local anæmia, degeneration of unknown origin, and by toxins. The mode of action of these various causes may be modified by the anatomical relationships of the nerve in various parts of its course. It thus behoves us to subdivide the course of the nerve anatomically as a preliminary to outlining a new classification. This may be conveniently done into five portions: (*a*) Retinal, (*b*) Papillary, (*c*) Orbital, (*d*) Foraminal, (*e*) Intracranial. And as a complement to that we will consider the atrophies according to Paton's classification under the following headings:—

1. Those of localised origin.
2. Those of general or diffuse origin.
3. Those of unknown origin.

It is evident that if we consider the atrophies in the first group, under the five anatomical headings, we shall cover the majority of cases.

1.—ATROPHIES OF LOCALISED ORIGIN

(*a*) *Retinal.*—You will remember my description of the ophthalmoscopic appearance of this group—the pale yellowish or waxy disc, and the attenuated arteries. Into this group fall retinitis pigmentosa, amaurotic family idiocy and cerebro-macular degeneration. Since the atrophy is due to death of the ganglion cells to which the fibres belong, it is evident that anything which causes such death will cause an atrophy of this type; we must therefore add the atrophies consequent upon retino-choroidal inflammations and vascular retinal degenerations. It is also possible that certain of the toxic amblyopias, notably that due to quinine, are caused by direct action of the toxin on the ganglion cells of the retina, though its action is usually described as being primarily upon the retinal vessels. I incline to the opinion that the ganglion cell degeneration is a direct result.

In parenthesis I must mention that I do not propose to enlarge upon the list of diseases given under the various headings, nor to describe the physical signs and ophthalmoscopic appearances in detail. My idea is simply that it would be a help, to a student considering any particular disease mentioned here, to be able to visualise it in its proper place in a rational classification of diseases causing optic atrophy.

(*b*) *Papillary.*—This group must include all atrophies consequent upon papillitis and papill-œdema, and since raised intraocular tension destroys the fibres as they curve round the edge of the sclera, glaucoma falls in this category also. A rare cavernous degeneration which occurs in high myopes must also be included; and, to be complete, we must also mention avulsion of the optic nerve—a very rare traumatic occurrence.

(*c*) *Orbital.* Since the orbital portion of the optic nerve has meningeal sheaths, this group includes atrophies due to any form of meningitis. Orbital cellulitis due to sinusitis or dental disease may result in ultimate atrophy, and a myelitis may occur in this part of the nerve from any one of various causes, such as disseminated sclerosis, syphilis, influenza, varicella, etc., and give rise to optic atrophy. There is also the atrophy following Herpes Zoster of the fifth cranial nerve—a complication of which the pathology is very imperfectly understood. Finally, tumours in this situation may cause a mechanical atrophy; they are usually divided into extradural and intradural. Gummata also occur.

(*d*) *Foraminal.*—The most obvious cause in this group is trauma. A basal fracture involving the foramen commonly causes rupture, either actual or physiological, of the nerve at this point. Owing to the attachment of the nerve sheaths to the bone, an actual fracture is not essential, and causes such as intradural hæmorrhage must be remembered. The atrophy occurring in oxycephaly and Paget's disease is probably referable to this point, as is that of leontiasis ossea. Again, pressure on the nerve may come about through sclerotic changes in the internal carotid artery, or its ophthalmic branch.

(*e*) *Intracranial.*—Meningitis and disseminated sclerosis must be mentioned again here, but the main causes of optic atrophy in this group are intracranial tumours, which may by no means necessarily cause a preliminary papillœdema, especially those in the pituitary region. Basal aneurysms are another possible cause.

2.—ATROPHIES OF DIFFUSE ORIGIN

The main group of sources of atrophy in this category are the toxic ones. Our knowledge of the site of action of some of these is incomplete, and it is likely that some are included here which should rightly be placed elsewhere—for instance, in the group of retinal causes. Amongst these toxic causes are tobacco (it is doubtful if a real atrophy occurs from this cause), methyl alcohol, lead and Aspidium felix mas—to mention a few. Diabetes and the anæmias may also be placed in this group.

3.—ATROPHIES OF UNKNOWN ORIGIN

I must here admit that I am placing in this category some causes of optic atrophy which late neurological research may have satisfactorily classified; I can only say that my knowledge of the diseases in question is not sufficient to allow me to do this. It may surprise you that I head the list with tabetic optic atrophy. So many opinions have been expressed that I am not at all satisfied as to the site of the lesion in that type of atrophy—indeed, it may be that there is more than one type of tabetic optic atrophy, and clinical manifestations lead us rather to this view.

In this group I include the rare cases of atrophy which occur in association with systemic nervous degenerations, such as Friedreich's disease and peroneal atrophy. Finally, there still exists a

doubt as to the exact cause of the atrophy in Leber's disease, which justifies its inclusion here.

* * * * *

I cannot close without mentioning the great value of perimetry in diagnosing the cause of a doubtful optic atrophy. The careful plotting of the visual fields is of first-class importance in such cases, and often helps to determine the site of the lesion in doubtful cases; indeed, it is mainly upon the variations in the visual fields that occur in tabetic atrophy that has given rise to the idea that more than one form exists. I need not dilate upon the deductions to be drawn from such phenomena as symmetrical field loss, sector defects, concentric contraction, etc.; once the fields are examined, anatomical consideration of their significance will often lead one to a diagnosis of the site of the lesion.

I hope this consideration of the subject may impress you with the diverse nature of the causes of optic atrophy, and assist you in obtaining as clear a mental picture as possible of a classification of these causes.

Ulcerative Colitis

What is it?

By H. M. S. Turner, Esq., M.D.(Lond.), F.R.S.(Edin.), D.T.M. & H.

OF all practitioners, he who works in the Tropics probably sees more cases of ulceration of the large bowel than most others; and when he sees "ulcerative colitis" assigned a place in text-books as an entity quite separate and apart from the forms of ulceration with which he is familiar, he sometimes wonders whether this is justified.

Hurst, writing in Price's "Practice of Medicine," states that "Ulcerative colitis is a condition which occurs sporadically *in England and other countries where dysentery is not epidemic.*" (The italics are mine.) Under the heading of "Diagnosis" it is stated that "if the patient has been in the East the possibility of dysentery should be considered, though the absence of such a history does not exclude it, as I have seen several cases of amœbic dysentery in people who have never been out of England."

The two extracts quoted above are at first somewhat puzzling because, of the dysenteries, the only one which assumes epidemic form is the bacillary type; and when the words "epidemic" and "dysentery" are used in conjunction, that is the type which naturally is indicated.

Amœbic dysentery, a much more chronic variety, is *endemic*, as will be appreciated from the name "walking dysentery" which has been applied to it.

Authors agree that ulcerative colitis may be acute or insidious in its onset. An acute onset, of course, excludes the amœbic form of dysentery.

The causes of ulceration of the colon may be divided into (*a*) those which are commonly met with in warm climates, and (*b*) those which occur universally (although it must be remarked that the former causes are not *entirely* confined to warm climates). To put it in another way, there are (*a*) causes which are generally recognised as giving rise to the diseases which comprise "the dysenteries," and (*b*) diseases which may and not infrequently do cause ulceration of the colon.

Whatever may be the underlying cause of the ulceration, when established it gives rise to a group of symptoms which has been called "the dysentery syndrome," viz., (1) colic, (2) frequent stools, (3) the passage of blood and mucus, and (4) tenesmus.

CAUSES OF ULCERATION OF THE COLON

A. Causes which give rise to "dysentery":—

1. Bacillary infection (bacillary dysentery).
2. Infection with certain protozoa (protozoal dysentery):—
   - *a.* Colic amœbiasis (*E.* histolytica).
   - *b.* Balantidial dysentery (balantidium coli).
3. Helminthic dysentery:—
   - *a.* Bilharzia mansoni infestation.
   - *b.* B. hæmatobia infestation.
   - *c.* B. Japonicum infestation.
   - *d.* Verminous dysentery (*e.g.*, œsophagostomum apiostomum.)

B. Other diseases which may cause ulceration of the colon:—

4. Ulceration secondary to new growths.
5. Tubercule.
6. Syphilis.

As regards the causes enumerated under (B.), I do not see that there could be any objections to speaking of "tuberculous dysentery," "syphilitic dysentery," or "neoplastic dysentery."

Of the above causes, bacillary dysentery is the one which might most reasonably be suspected of playing a part in " ulcerative colitis," and I propose to consider it rather fully in this connection.

If ulcerative colitis actually does exist apart from these causes, is there anything which will help us with the differential diagnosis ? We should require to distinguish it from the acute or, in the majority of cases, the chronic form of bacillary dysentery.

" If the patient has lived in the East, the possibility of dysentery should be considered." We can get no help from the symptoms, because in both the acute and the chronic forms the clinical manifestations are often indistinguishable from those of dysentery. In chronic bacillary dysentery it may be impossible to recover the infecting organism. Even in acute forms with the typical dysentery syndrome it is not unusual for a negative culture to be obtained—about which I shall have something to say later—and we find ourselves making a diagnosis of " ulcerative colitis " if the patient has not been out of England, with the possibility of " ? chronic bacillary dysentery " if he has.

Let us consider the geographical distribution of bacillary dysentery for a moment. It will be generally accepted, I think, that it flourishes most in insanitary surroundings.

History shows that epidemics have raged at some time or other in every country in the world. They have occurred in the Arctic Circle among the Esquimaux. I myself have personal knowledge of it in Patagonia and the Argentine. It occurs in Brazil and other countries in the North of South America. in Panama and Mexico, and in the Southern States of North America. We also find it in the West Indies.

The reason that we are prone to associate dysentery with " The East " arises from the fact that teeming millions of an ignorant population live in indescribably insanitary surroundings ; and the high average temperature, which favours bacterial growth, the putrefying garbage, which encourages fly-breeding, the alternation of dry and rainy seasons—all unite to promote frequent epidemics of a dramatic nature. Bacillary dysentery has always been the scourge of armies in the field ever since—and almost certainly before—the Crusades. It was one of the major factors in the destruction of Napoleon's army in the retreat from Moscow. In the American Civil War among Federal troops alone there were 259,071 cases of acute and 28,451 cases of chronic dysentery. In the South African War it probably exceeded the battle casualties in number. In all these campaigns typhoid and dysentery were the " Captains of the Men of Death." In the Great War, owing to the universal practice of inoculation in the British armies, the incidence of typhoid became comparatively negligible, and dysentery took pride of place. Epidemics occurred in France, Egypt, Palestine, Gallipoli, Mesopotamia and East Africa.

As regards our own country, repeated epidemics have occurred in Great Britain and Ireland from the earliest times, and improvement only began with better hygienic surroundings. Like malaria, it diminished, not because of any special measures adopted for its prevention, but merely because more sanitary surroundings interposed an effective barrier to its spread.

It is generally believed that on the continent of Europe and in this country it now only occurs in institutions in the form which has been called " asylum dysentery," and, although this may be moderately, it is by no means strictly, correct. It is comparatively common in certain Southern European countries on the Mediterranean seaboard.

Occasional outbreaks such as " asylum dysentery " could not happen unless there existed ready to hand a " natural reservoir " of the disease. Efficient public health services, by providing supplies of pure drinking water and water-carriage drainage systems, together with the systematic collection of house refuse, have virtually eradicated the disease from large towns ; therefore, if we want to find it we must look in other places.

One would expect it to be found among communities where refuse and manure heaps encourage the breeding of flies ; where sanitary arrangements are primitive, water supplies liable to contamination, nor the sanitary intelligence of the inhabitants of the highest order. All these conditions may be found in small villages in agricultural districts, of which there are hundreds scattered up and down the countryside, each one a potential or actual " reservoir " of bacillary dysentery.

The recollection will be fresh in the minds of many of a tragic occurrence nearly two years ago resulting from the drought. The well from which a family drew their water supply dried up, and water was carried from a neighbouring stream in barrels and emptied into the dried-up well. Shortly afterwards several members of the family were taken ill with all the symptoms of acute bacillary dysentery, and died. An old Guy's man who was indirectly concerned came to see me and discussed the cases. I gave it as my opinion that they were undoubted cases of acute bacillary dysentery, and that the responsible organism would probably turn out to be Flexner Y. This was subsequently proved to be the case by the laboratory report.

A medical friend of mine asked me to see a patient in a small village of about a hundred and

fifty inhabitants, not many miles from where the above occurred. He was said to be suffering from acute diarrhœa and passing considerable quantities of blood in the stools. On examination I found that he had a temperature of 102°, his stools were almost uncountable in number, scanty—not more than one or two tablespoonfuls in each—and consisting of nothing but clear blood-stained mucus. He had severe colic both on passing the stools and in the intervals. The accompanying tenesmus was very severe, and with the combination of the two he was in a state of great distress. His face was flushed with that dusky redness over the cheek-bones which one has learned so well to associate with the toxæmia of acute bacillary dysentery. There was no difficulty whatever in making a clinical diagnosis, and the case was notified as "Clinical Dysentery (acute bacillary type)." Within a week the doctor had six more cases, and altogether there were ten in the village. On questioning various villagers, we were told that nearly every autumn "diarrhœa went through the village" and that it was quite a common thing to "pass blood." They said they were so used to it that they did not bother to send for the doctor unless somebody was very bad.

The houses in the village were for the most part from 100 to 200 years old, with a dozen or so "Council houses." The privies were on the pail system, and it was customary to empty the contents on the gardens as manure and dig it in. The domestic water supplies were obtained from wells, which in every case were in the gardens, near the house and the privy. In some cases one well served several houses. Practically all the wells were open to contamination by surface water. They were shallow, and the water they contained was of the character of surface water. In two samples we took there were B.C.C. in ·01 c.c.

I was asked to meet the M.O.H., who said that he had seen the cases and, in his opinion, they were merely "epidemic diarrhœa"—whatever that may be—and not dysentery. Naturally I stuck to my opinion, and the M.O.H. asked for a stool specimen to be sent to the laboratory 30 miles away. I told him that dysentery bacilli do not always survive a journey through the post, and suggested a blood-agglutination instead. However, he preferred the stool, so arrangements were made to send a specimen by car and keep it warm on the journey. The laboratory reported that Sonné's bacillus was present.

A few weeks later I was asked to see a man in a village about four miles from the preceding. His temperature was 103°, he was deeply toxæmic with the usual dusky flush on his face, there was the common history of severe colic and tenesmus and of being "glued to the commode." His stools contained blood and mucus and were of the usual scanty bacillary dysenteric type. Flexner Y was isolated. The attack was very severe indeed and the man nearly died. He was unable to resume his duties for two months.

The following week I was asked to see a man in another village three miles from that in which the first case quoted occurred. To my surprise I found that he was an officer who had been in my division in France. The attack had developed quite suddenly, as they often do, and his temperature was 102.4°. He had had dysentery in France in 1918, recognised the symptoms, and had already put himself on two-hourly doses of a dram of sodii sulph. His colic was severe, and, although the stools were of the usual scanty type, he passed considerable quantities of bright blood with each. In selecting a specimen for laboratory examination it is advisable to take mucus or shreds which have not been in contact with blood and urine. Flexner Y was found present in his stools.

I could mention many more cases, but the above are quite sufficient to prove my contention that bacillary dysentery is still endemic in this country, and that it can be demonstrated bacteriologically with very little trouble and a reasonable amount of care.

I would again emphasize the fact that it is most likely to be met with in small villages, where defective methods of conservation, and water supplies liable to contamination favour, its continuance.

In recovered cases of bacillary dysentery it is usual to get a "carrier rate" of the order of 3 per cent. The greater proportion of these will be "convalescent carriers" who have not completely recovered and continue to pass dysentery bacilli in their stools.

These are the type of cases which, from ignorance of their condition in the absence of proper advice, are likely to be guilty of indiscretions of régime and to provide an unknown proportion of the type of cases which, not having "lived in the East," are liable to be diagnosed as "ulcerative colitis."

As regards the "carrier state," the maximum duration has been found to be about three years, although in the majority of cases it is probably from six to eight months. It must, therefore, be recognised that these carriers do form a natural reservoir of the disease quite adequate to ensure its propagation from year to year.

In taking the history of a case of "ulcerative colitis," there is need for closely questioning the patient as to place of residence, nature of water supply and sanitary arrangements. Information

as to the beginning of the illness is especially important, whether it was acute and febrile with many stools or whether the onset was more insidious. In this connection it is essential to remember that the mode of onset of bacillary dysentery varies within the widest limits. At one end of the scale a patient may have a little abdominal discomfort and a couple of slightly relaxed motions and nothing more. At the other, he may rapidly sink into a condition of toxæmic coma and die of toxæmia before a single dysenteric stool has been passed. The justification for describing a possible onset as " insidious " will be obvious in the circumstances.

The fact that none of the known causative organisms may be recovered from the stools, especially in chronic cases, need occasion no surprise. It may happen even in acute cases that they rapidly disappear; and it is quite a common occurrence for the ulcers to become secondarily infected. It may be worth while to culture a swab taken from the base of an ulcer.

In places where dysentery is prevalent and its symptoms are recognised early, it is not uncommon to meet with a certain proportion of " chronic resisters " who, even with correct treatment and proper care from the beginning, do not clear up, but become chronic. It may be imagined, therefore, how much more likely this is to happen in a place where the real nature of the disease is overlooked and the patient is more or less left to himself once the acute attack is over.

I think the fact that dysentery is endemic in certain localities in this country is beyond all doubt, and I therefore put forward the view that the condition described as " ulcerative colitis " is most probably the result of an acute or subacute attack.

It was not my intention to say anything about treatment in the present paper, but before closing I would like to remind my readers of the help which surgery can give.

Some of these cases are very discouraging to the doctor, although many of them ultimately do fairly well on purely medical treatment.

The ones I have in mind are those in which the symptoms remain unabated in spite of treatment. They become anæmic, lose flesh steadily and go down hill. Neither drugs, diet, local treatment nor blood transfusions give more than temporary relief, and after a long and trying illness the patient dies.

The lesion is usually confined to the large bowel, and the patient's dietary has to be regulated by its remote effect on the colon. If the colon be put out of action by surgical means it becomes possible almost immediately to put the patient on a much more liberal diet, with a corresponding chance of improving his general condition. Thus the ulcerated and often inflamed bowel is given the rest and opportunity for healing which have been denied by frequent actions. Lavage and such other local treatment as may be ordered can be employed without the fear that it will be rendered nugatory by the continually oncoming fæces.

Of the two operations which may be chosen cæcostomy is in my experience the most satisfactory. If necessary, the opening may be allowed to persist for an indefinite time—six months or a year—to ensure perfect recovery. A patient of mine was so much better after cæcostomy and had so great a dread that if the opening were closed the old trouble would return, that she refused to have it closed, and eight years afterwards was in a condition of otherwise perfect health.

I think the duty of deciding on the indications for operation rest with the physician, and in the main they may be broadly stated as (1) lack of response to treatment with (2) steady deterioration in health; (3) progressive loss of weight; (4) increasing anæmia of secondary type, and (5) aggravation of symptoms, especially after attempts to give a more nourishing diet.

The right moment for surgical interference must be judged by the patient's condition rather than the duration of the disease, and it is a mistake to delay it too long.

It is hardly necessary to say that before operating growth and tubercle must be excluded as the causative factors.

Causes and Diagnosis of Pain of Dental Interest

A Paper read before the Guy's Hospital Dental Society on 7th January, 1936, by C. G. Wright, Esq.

MR. CHAIRMAN and GENTLEMEN,—I hope to place before you in as logical a manner as I can the possible causes of pain which the dental surgeon may be called upon to diagnose. The two main painful sensations, namely, odontalgia and neuralgia, will be discussed under their separate headings—the former referring to pain in and around a single tooth and the latter to painful sensations arising in or about a nerve distribution, due to causes either in the nerves themselves or at their origin or termination. It is not necessary to enter upon a detailed anatomical

description of the trigeminal nerve, but let it suffice to say that it is the great nerve of sensation distributed about the face and neck, and having connections with numerous cervical nerves and communicating loops with the brachial and cervical plexus. Therefore pain originating in any section of this nerve may be referred to any other position, central or peripheral, situated within the connections of the nerve. The only exception is that pain is never referred across the mid-line.

We now come to a consideration of the possible causes of *odontalgia*, and firstly, the diseases and injuries of the pulp. Caries in its early stages sets up an irritation which is transmitted to the responsive pulp; the pulp reaction is one of protection, with hyperæmia of the pulp vessels. This hyperæmia produces an increase of tension within a closed space, the result being pain from a mild to an excruciating degree.

In cases of a traumatic bite on a filling built up too high—this again produces an irritation within the pulp and the consequent hyperæmia which may or may not give rise to pain.

Upon the actual exposure of the pulp due to caries pain is usually very severe, and is of the neuralgic type, making localisation extremely difficult. The intense inflammatory reaction is often followed by the death of the pulp, whereupon the pain ceases. This condition will remain as long as there is a free communication between the pulp chamber and the outside. If, however, a foreign body becomes looped so as to occlude the natural opening pain will almost invariably recur, and this is due to the gases produced as the products of putrefaction of the pulp tissue. The infection may also spread by continuity to the periodontal tissues, which will in turn give rise to pain. When the suppuration of the pulp occurs within a closed pulp cavity, that is when there has been no invasion by caries, there is severe throbbing local pain, greatly aggravated by heat, which causes an expansion of the gases, and unaffected by cold.

Some people chew their food with great intensity and produce the three conditions which go together—erosion, abrasion and attrition. These induce reparative conditions (secondary dentine) or else degenerative changes of a fibrous or fatty nature. These changes by themselves are not definitely associated with pain, but neuralgic attacks may be produced at intervals during the process.

Hopewell Smith recorded a case of calcareous nodules appearing in the pulp. This was a pathological condition arising from some cause unknown, but might well arise from a traumatic bite. He considered the pain produced was due to the nodules of calcareous material pressing on the nerve bundles of the pulp.

Another type of patient suffers from paroxysms of pain when taking things sweet or salt. The pain is localised and is usually due to recession of the gum and consequent exposure of cementum.

Lastly, there are the rare cases of patients suffering from some generalised vaso-motor disturbance, in whose teeth symptoms of persistent hyperæmia are exhibited, and a mild but continuous ache results.

The pain arising from a lesion in a particular tooth may not necessarily be felt in that tooth, but may be referred to some other tooth or region, of which more will be considered later, but to mention, in passing, pain in the premolar region due to lesions in the third lower molar region is of interest. Similarly pain is felt, sometimes, in the ear due to a lesion of the lower molars, and again there is the everyday case of pain referred to a perfectly sound tooth from an unsound one giving no trouble.

Secondly, there are fractures of the tooth involving the pulp. In the majority of cases the injury is obvious and easily detected, and usually arises from a direct injury; about these cases no more need be said. But in a few cases in the molar and premolar region fractures may not be apparent, and usually run down from the coronal fissures; these fractures may involve the roots. In even still fewer cases an oblique or transverse fracture of the root alone may occur, and very often remain entirely unsuspected if there is no communication between the site of fracture and the mouth; conditions are favourable for union or repair.

We may include under this heading of fractures of the tooth those which do not involve the pulp. The pain felt in these cases is due to the sudden exposure of fresh dentine and its response to unnatural stimuli, such as heat, cold, sugar and salt.

Thirdly, there are the rather unusual cases of two different metals in close apposition setting up a voltaic current. The classical example of this electrical action is when a gold denture clasp fits loosely upon a portion of an amalgam filling. I had a case of this happening to a patient of mine in the Conservation Room. I had filled a distal occlusal cavity in an upper premolar with amalgam, around which a clasp of his upper denture was fitted. He came back saying it hurt him at intervals for no apparent reason, but not at night. On asking him if he left his denture out at night, he said he did. The conclusion drawn was that it was not a faulty filling, but some kind of electrical stimulation.

Now we pass to the second main condition giving rise to odontalgia, namely, periodontitis arising from injury to or disease of the periodontal membrane. It is usually a grumbling or throbbing pain and easily localised. When the periodontal membrane becomes inflamed its volume is increased and the tooth is pushed slightly out of the socket, and thus bears the initial blunt of mastication.

Periodontitis may arise either from a direct injury, such as careless application of ligatures or rubber dam clamps, or it may arise from the spread of infection from the gum margin or pulp. Changes in the vascular supply of the gum may be seen, the gum becoming swollen and dusky in colour.

Certain drugs, notably arsenious oxide and preparations of mercury as formerly used in the treatment of syphilis, cause a general periodontitis if allowed to come into contact with the mucous membrane of the mouth. In a few cases of an impacted third molar, syphilis, certain drugs, and of other causes, a general periosteal inflammation of the jaw may arise. The earliest symptom is tenderness in all the teeth, worse at night; the teeth are slightly raised from their sockets. The course of the disease will depend on the cause, but as a general rule a thickening of the jaw occurs.

THE NEURALGIAS

Now we pass on to a group of very important nerve lesions involving the face and oral regions—the facial neuralgias. These disturbances should be designated as neuralgic types of pain.

Neuralgia major was first described by Fothergill in 1712, other synonyms being epileptiform neuralgia or tic douloureux. This form of neuralgia is one of the most disturbing types of facial pain, and may be referred to any portion of the mouth, lips, teeth or gums. The disease has no known cause.

The pain is very severe and acute, appears suddenly and violently in convulsive waves and may disappear entirely between the paroxysms, occasionally it persists in a dull form for several hours and recurs with acute exacerbations. During the actual bout of pain the features of the patient may become distorted and present the unmistakable appearance of intense suffering. There may be twitching of the face and lips. A symptom sometimes present is that of salivation, especially when the pain is referred to the lips and angles of the mouth; the mouth drops open and saliva runs out. Patients will do anything to try and rid themselves of the pain. There is a case on record at this hospital where the patient extracted four teeth with a pair of scissors, and finally committed suicide by jumping out of the window. A large tumour was found near to the root of the trigeminal nerve.

The paroxysms of pain are of very short duration, lasting about one and a half minutes. The pain may discontinue as quickly as it appears. An outstanding feature is the tendency to produce an attack of pain upon the slightest peripheral irritation within a circumscribed area. These areas are often seen at the naso-labial fold, the corners of the mouth, and on the upper lip under the nares; they have been called "trigger zones" by an American writer, because the slightest touch, a draught, eating, talking, shaving or making a slight wipe over the face with a wisp of cotton wool are capable of setting off the pain. At times these trigger zones lie outside the area of pain distribution; thus a case with supraorbital pain may have a trigger zone in the maxillary division.

A vaso-motor theory of the cause of pain is that the paroxysms are due to vaso-motor disturbance. The nutrient vessels of the ganglion contract due to sympathetic influence or set up an anæmia and excite great pain. This theory fits the symptoms and also explains the absence of any organic changes in the ganglion, or any part of the nerve.

The treatment of the condition is outside the scope of this paper. The forms of treatment are: (1) Palliative or medicinal, (2) injection of chemicals into the nerve or into the Gasserian ganglion, (3) partial or complete excision of the sensory root of the ganglion. Of these forms of treatment only the last mentioned can produce a permanent cure.

And now we pass on to neuralgia minor or neuritis. This is a class of painful symptoms arising from inflammation of the actual nerve trunks. It should not be confused with neuralgia or visceral referred pain, which will be considered later.

In neuritis the nerve trunks themselves, or their peripheral branches, become the seat of pathological changes. These changes may be temporary, passing off in a few days or weeks, or semi-permanent, lasting for a considerable length of time, and sometimes ultimately resulting in the destruction of the nerve trunk and paralysis of the tissues supplied by the nerve. Under this latter heading come those rare cases of ascending peripheral neuritis beginning from a septic infection in the peripheral distribution of the nerve and resulting finally in the loss of the nerve trunk.

The causes are those of true neuritis. I do not intend to deal with them here.

The pain may be of an acute type, with sudden darts passing along the nerve trunk, and the later symptoms may be loss of sensation in the distribution of the nerve. The symptoms may be extremely acute and resemble tic douloureux, but are rarely accompanied by salivation. Changes of temperature tend to produce increased pain and tapping gently on the nerve trunk at the situation involved will produce a sensation of "pins and needles."

Cases which are far more common than is usually credited are of patients who have been "cleared" for chronic periodontal disease. In these cases a sclerosing osteitis follows upon the extractions and encloses the nerve filaments, setting up a genuine localised neuritis. The gums and mucous membrane of the mouth present areas of anæsthesia and hyperæsthesia. The persistent pain is commonly caused by the inclusion of the nerve terminations in masses of fibrous tissue rather than in actual bone.

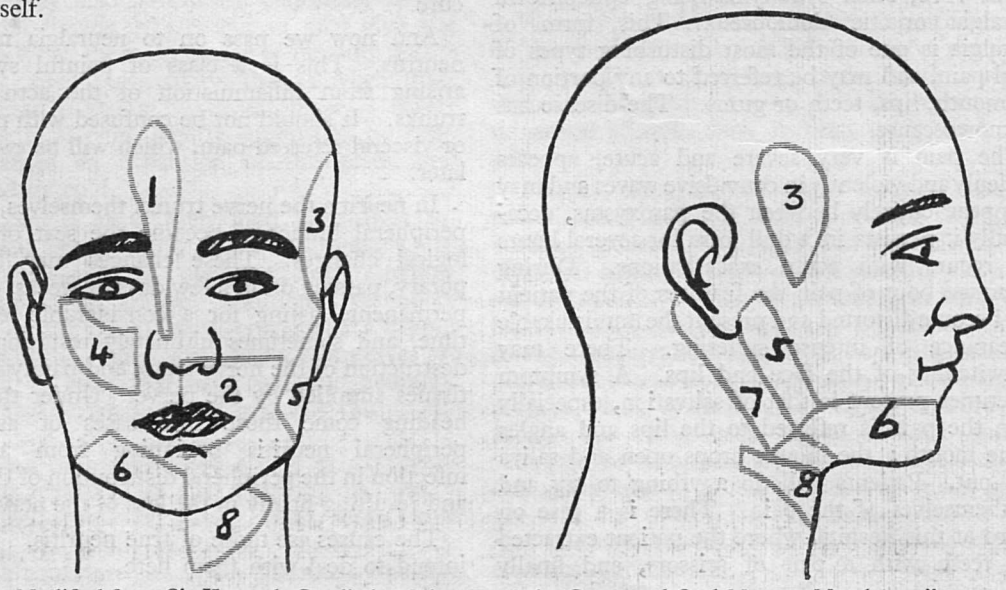
There are cases, however, where ivory osteomata have developed upon tooth extraction and the nerve filaments have been incorporated, which again has produced a persistent neuritis.

Under the next and third heading comes a class of symptoms designated as visceral referred pain. A large proportion of all painful sensations in the facial region are found to be varieties of visceral referred pain, such pain arising from nerve-end irritation in the mouth, gums, teeth, tongue or buccal mucous membrane. Inflammatory action on the peripheral nerve endings in the mouth may produce referred pain in one of the areas described by Head (about which more will be considered later), or in another position in the mouth itself.

The term "odontalgia" is used usually to describe simple toothache as opposed to "neuralgia" or visceral referred pain, in which the pain is not felt in the tooth, but is referred to some other portion of the face or mouth. The pain felt about the face does not necessarily arise from inflamed tooth pulps, but may be referred from any portion of the mouth surface, and any such lesion such as the presence of calculus in the salivary glands or ulcers of the tongue and palate will produce it.

The malposition and difficult eruption of teeth, of which the lower third molar is the chief offender, gives rise to an irritation of the nerve endings. In the majority of these cases the pain is referred, generally to the cutaneous surface of the face or head. The irritation is due either to the formation of a stagnation area by the semi-erupted tooth, thus bringing about caries, or to an actual absorption of the roots of the tooth in close apposition due to pressure of the erupting tooth. In a very few cases a completely unerupted and unsuspected tooth will give rise to neuralgic symptoms.

It is now fitting to consider the important contribution to the comprehension of referred pain made by Henry Head at the end of the last century. By a carefully conducted series of observations extending over many years Head was able to show that there existed a definite relationship between certain visceral diseases of the head, throat and abdomen with well marked areas of superficial tenderness on the skin in the neighbourhood of the affected organs. He postulates that segments of the spinal cord received painful impressions from internal organs along their sensory tract, which were conveyed to the



Modified from Sir Kenneth Goadby's "Diseases of the Gums and Oral Mucous Membrane."

cerebrum, where they were interpreted as having arisen in the superficial areas supplied by the segments. Diseased teeth bear a definite relationship to one or more surface areas, and it is to these areas that pain is referred, and over them the skin may become tender when the normal condition of the organ is disturbed. Head's teachings are not, as yet, universally accepted, but are nevertheless of great value in the diagnosis of some obscure reflexes.

For painful conditions associated with the teeth, Head has divided the general topography of the head and neck into reference areas. According to his conception, each tooth seems to have a separate area of pain reference :—

Upper Jaw.	*Area.*
Premax. region	Fronto-nasal.
Canine and I premolar	Naso-labial.
II premolar	Temporal and Maxillary.
I molar	Maxillary.
II molar	Mandibular.
III molar	Mandibular and hyoid.
Lower Jaw.	*Area.*
Incisor and canine	Dental.
I premolar	Dental.
I and II molars	Hyoid.
III molar	Supra-laryngeal and hyoid.

Having covered the groundwork of nearly all the causes of pain, we now pass on to the differential diagnosis of these conditions. The everyday case of toothache presents no difficulty, as the lesion is usually apparent. But perhaps we may consider the less obvious possibilities of the cause. Causes which may give rise to simple odontalgia or, on the other hand, to neuralgia.

Firstly, a history of the pain should be obtained and the patient should be asked to describe as well as he can the type of pain. Secondly, an examination of the mouth should be undertaken. During the cross-examination of the patient as to the history and nature of the pain the following questions generally give some clue : Is the pain sudden or gradual ? Is it affected by heat or cold, food, salt, sugar, etc. ? Is it affected by posture ? Is it sharp or dull, spasmodic or continuous, localised or general ?—and, if referred, what is the exact spot of maximum intensity ?

During the examination of the mouth the condition of the gums is noted—whether cementum be exposed or not. A collection of soft tartar around a tooth in an otherwise clear mouth is very significant. Ulcers in any situation on the oral mucous membrane are a frequent source of neuralgic pain.

As a general principle it is safe to say that pain of a sharp stabbing nature, affected by heat and cold, is usually due to pulpitis. On the other hand a dull throbbing pain, which is localised and unaffected by changes in temperature, the patient complaining that the tooth feels too long and is tender to bite upon, is indicative of periodontitis.

Dead teeth are usually a shade darker in colour and do not show the usual pink colour of a live pulp to the transillumination test. Floss silk passed between teeth will not run smoothly, and usually appears frayed when searching for approximal cavities.

Such conditions as cannot be elicited by clinical examination, as, for example, pulp stones, exostosis, rarefaction, supernumeries and buried roots, have to be diagnosed with the aid of the X-ray.

And now the differential diagnosis of the various forms of neuralgia. In neuralgia major (tic douloureux) in its acute form the diagnosis is clear. There is acute paroxysmal pain, coming on without warning and disappearing suddenly, with perhaps a large crop of herpes in the distribution of the nerve, and acute salivation associated with the bouts of pain. In the milder cases the distinction between neuralgia minor and visceral referred pain is less easy, but as a rule true neuralgia major affects only a small area, recurs with regularity, and affects one particular locality. The suddenness of onset and the absence of persisting acute tenderness over the affected area or along the nerve trunk separate it from visceral referred pain or neuralgia minor.

In neuralgia minor or true neuritis the chief feature is pain related to the distribution of the nerve, to tenderness along the nerve trunk, and to trophic changes taking place in the distribution of the nerve. Associated with affection of the sensory nerves may be damage in the motor nerve resulting in paralysis of the muscle to which the nerve is supplied. Hyperæsthesia is common in the area of the nerve supply, and acute burning spots may be noted corresponding to Head's areas at the points of maximum intensity. The acute nature of the pain, the tenderness down the trunk of the nerve, the signs of alcohol or arsenic poisoning, and other forms of general disease all point to neuritis. It must, however, be remembered that attacks of trigeminal neuralgia may occur from organic disease of the nerve, *e.g.*, a tumour of the ganglion. In this condition there will be associated sensory loss and muscle weakness of the branches of the 5th nerve.

And now, lastly, the diagnosis of visceral referred pain. On inspection of the area complained about on the cutaneous surface of the face no obvious changes are to be seen, but at the points of maximum intensity (where the nerves emerge from their bony foramina) there is tenderness on pressure. The area should be mapped out and a search made in the area in the mouth, wherefrom, according to Head, the pain had been referred.

One of the commonest causes is a rarefying osteitis of the alveolar process, secondary to a suppurative periodontitis, which is gradually destroying the alveolar bone and perforating into the body of the jaw. These cases are very insidious, and inspection, palpation, percussion and heat tests are usually all negative, the disease only being detected by X-ray.

Chronic suppurative periodontitis is rarely a painful disease; it is extremely uncommon to have pain referred to the alveolar process itself, but in many jaws affected by chronic osteitis small areas of tenderness may be found situated on the cutaneous surface of the face and corresponding to the areas described by Head relating to the teeth. The pain is rarely acute, and is no more than a superficial tenderness noticed on shaving or brushing the hair.

If there be a chronic ulcerative condition of the tonsil, the patient will often complain of pain in the upper or lower third molar region associated with a discharge from the gums, with small hyperæsthetic areas of the palate and buccal mucous membrane. Pus may exist in the crypts of the tonsil, but the discharge is due to a flow of saliva which will flow from the parotid gland upon stimulation of the tonsil.

Some causes, when the tongue is the site of pain, are tonsillar and pharyngeal affections, while cases of chronic disease of tooth roots and suppurative periodontitis manifest themselves in the tongue.

Another form of referred pain is that of persistent discomfort in the salivary glands, the peripheral nerve irritation apparently acting as a stimulus to the activity of the gland. Usually the amount of pain is small and there is a history of a constant discharge of saliva. In normal circumstances increased secretion of saliva does not take place at night, but when irregular reflex stimulation of one gland is induced through irritation of the nerve endings in the jaw, the patient becomes conscious of an extra flow of fluid in the mouth, especially at night. These cases are very often the result of small areas of chronic inflammation about the jaws.

Whilst on the subject of the neuralgias it is necessary to include the rare types, namely, glossopharyngeal neuralgia and sphenopalatine neuralgia. The former is very severe; it starts suddenly at the base of the tongue in the region of the tonsils, radiating to the area in front of the ear, and in some instances down the neck. The pain may be spontaneous, but is often brought about by swallowing.

The second type is due to an irritation of the sphenopalatine ganglion. There is pain at the root of the nose, sometimes also in and about the eyes, the upper jaw and teeth, sometimes the lower jaw and teeth. It may extend behind the mastoid over the shoulder to the axilla, and in severe cases down the arm to the fingers.

And to finish, a word about the neuroses of the mouth. They are affections consisting of pain referred to the gums, tongue, buccal mucous membrane, and teeth, and to disorders of increased and diminished secretion. Usually patients who complain of these symptoms, when there can be no immediate cause, have other evidences of their psychoneurotic state. Alcoholics often complain of dry mouth. This is due to inhibition of the normal secretion of the salivary glands. This type of patient has many fancies and fears, complains of pain in the gums and tongue, or wishes to have his or her teeth ground down to prevent irritation of the tongue, or may express fears of cancer. These individuals have, usually, inadequate personalities, and the symptoms about which they complain are merely the results of their emotional conflicts. The imaginary pain passes away if the patient can be convinced that all is perfectly healthy.

Correspondence

King George V College

To the Editor of the GAZETTE

SIR,—Strike while the iron is hot! It is no good uttering platitudes about Don Quixote and windmills. Let us get a move on. Let us have a meeting of the Clubs' Union and appoint a small committee to consider ways and means, so that we can know exactly how much money has to be raised. A new college worthy of our Hospital would be a fitting memorial to His Late Majesty King George V, and would perpetuate the memory of his long connection with Guy's, which we all cherish.

There must be about 3,000 old Guy's men, and every one would help, I am certain. With the use of a room as an office, a clerk, and a typewriter, plus the cost of printing and postage, a start could be made almost at once. The administrative expenses would be properly chargeable against the fund, and they would be very small. Such an appeal, quite separate and distinct from those issued by the Hospital itself, would not

divert any income from the Hospital. I wonder how many half-crowns it would take to fill the old milk churn ?

Yours, etc.,
" CARFAX."

To the Editor of the GAZETTE

SIR,—I am in complete agreement with the letter of " Carfax " published in your last number. There are many students to whom, during the daytime, the Club stands *in loco domi*. Surroundings such as they are compelled to use get a man down in time. I was there myself just before Christmas, and said at the time that students who prefer to adjourn to the comfort of a local hostelry can scarcely be blamed.

If the powers that be take so little interest in the welfare of their own students there must be something wrong somewhere.

Yours, etc.,
" M.R.C.S., L.R.C.P."

To the Editor of the GAZETTE

SIR,—The letter of " Carfax " is a little on the vigorous side—although there may be some who think that would be an impossibility. At the same time it must be admitted that those mysterious people called " The Authorities " have no easy task. Supposing they decide to rebuild the College ; what is to happen in the meantime to the residents and house-officers ?

The present site does not lend itself readily to extension except upwards, after the American fashion—and, thanks to the L.C.C. building regulations, there is a limit even to that. In a high building at least two lifts would be necessary, and unless there were lift attendants there would almost certainly be an accident sooner or later. Even in electric current alone a lift is a costly thing to run. A high building would certainly lend itself admirably to the provision of a roof garden, and the top floor would be a pleasant place for the club accommodation, but a central well would still be necessary to supply the inner rooms with daylight.

Yours, etc.,
RADCLIFFE BODLEY.

*** There have been two lifts in the Medical Block and two lifts in the Surgical Block ever since we or any of our acquaintances can remember, and we have never heard of any accident occurring despite the absence of attendants. We feel that such objections are trifling, and should any rebuilding ever take place, could be left with perfect safety to the intelligence of the architect.—*Ed.*

A Nurses' Co-Operation

To the Editor of the GAZETTE

SIR,—For some time now I have realised that the Guy's Visiting Staff and other Guy's men would like to be in touch with a Nurses' Co-Operation from which they can obtain Guy's trained nurses.

I am starting such a Co-Operation the first week in March, when I hope to have a staff of Guy's trained nurses suitable for all types of cases.

The address of " The Co-Operation for Guy's Hospital Trained Nurses " will be 3, Hartland House, Tooley Street, S.E.1 ; Tel. No. *Hop* 0230.

I shall be pleased to forward particulars to anyone who might be interested.

Yours, etc.,
ELEANOR E. HUGHES.
Theatre Sister.

Theatre Dept.,
Guy's Hospital,
S.E.1.

The Phantom H.P.

To the Editor of the GAZETTE

SIR,—When you have read the enclosure you will understand my interest in the last part of Dr. R. L. Wason's letter published in the 18th January issue of the *Gazette*.

If you can spare space to publish the enclosure I will feel obliged. I have not written it in any spirit of controversy, but purely out of interest.

Next May it will be 50 years since I first played cricket for Guy's, and I have taken the keenest interest in Guy's fortune at the game ever since.

Yours, etc.,
J. H. BUSTEED.

Bungay,
Suffolk.

Dr. R. L. Wason's allusion, under " The Phantom H.P." in the last *Gazette*, to an occurrence during the cricket season 1888 is of considerable interest to me, as I was secretary of the Cricket Club that year.

The writer is certainly under one misapprehension, for the man referred to was not a Middlesex County Cricketer. At the close of the Hospital cricket season in 1888, it was reported he had been invited several times to play for Middlesex, but, up to that time, he had not appeared for that county.

Prior to the Guy's Opening Club Match (Captain *v.* Secretary) on May 5th, the late Mr.

C. H. Wells sought me out to tell me a man, said to be a good cricketer, had just entered and would like to be given a trial, so I arranged for him to play in the opening match. Subsequently, he played fairly regularly for Guy's, pulling out his best batting displays in Cup Ties, notably 172 against University and 149 not out, out of a total of 186, in the final against Bart.'s.

I have no recollection of hearing the man was never registered, or of our having to give up the Cup that year, and would be very interested to know whether Dr. R. L. Wason is certain on the point and if it can be confirmed.

When I had the pleasure of raising a " Past " team to play the " Present," as the opening of the Clubs' Union ground on May 3rd, 1893, I asked the man to play, as the " Present " had a very strong eleven, but he declined the invitation. I cannot conceive my inviting him if I was aware of his never having registered at Guy's.

When he stated we had to give up the Cup, was Dr. R. L. Wason thinking of 1886? After much argument and many amusing incidents the United Hospitals' Committee declared the year an " Annus Non " (*en passant*, on " 50-50 " voting and absolutely illegally), because we played Mr. F. Colclough when he was only a Preliminary Scientific student.

We, however, retained the Cup at Guy's, although a deputation came to take it away.

Psychological Meetings

To the Editor of the GAZETTE

SIR,—Some of your readers welcome the idea of holding occasional meetings for the discussion of various aspects of psychology; unfortunately, many others hold the view that such a thing is a " mere waste of time," and maintain that such knowledge is unimportant in Medicine, and, if necessary, can be learnt from the books of Freud and his disciples.

Those who hold this view forget that psychology can only be learnt by studying and understanding human beings, their likes and dislikes, their reactions to life; in brief, being acquainted with every aspect of life.

A man is not to be regarded as a potential corpse loosely coupled with a possible ghost. Each individual is a single organism, and the mental aspect and the physical are inseparable.

We have only to look around us to see how widespread are all sorts of mental conditions, whether related to hereditary factors or upbringing and conditions of life. We must understand the enormous power of psychological force in order to deal with these properly.

Man has so long enjoyed the fruits of biological discoveries that he has entirely forgotten that man has also a mind. In the progress made in various branches of medical science, man has left the psychic component of disease out of account and has neglected the investigation of human psyche. But the amazing experiences of life, to those who are good observers, goes to prove that thorough knowledge of psyche is of supreme importance. Stekel says that a good physician must be a good psychologist and have a thorough knowledge of man.

The psychological department of our Hospital is larger than any other general hospital. With the encouragement and help of Dr. R. D. Gillespie and the inexhaustible material at our disposal, together with the instructive psychological meetings, there is opportunity for every one of us to try and learn something about the human mind.

If we are going to neglect that particular study which proves to be of considerable importance in medical practice, " Les charlatans de la Libido " will be very happy to do it for us.

It was announced in a previous number of the *Gazette* that meetings would be held on Thursdays, but, owing to lectures, we find it necessary to change the day to Tuesday, except when meetings are held in conjunction with the Physical Society.

Yours, etc.,

A. B. DJANOGLY.

Guy's Hospital,
S.E.1.

Guy's Hospital Gazette

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Marriage, Birth and Death announcements inserted free.

The Editor will, at all times be glad to consider articles or sketches, provided that they are accompanied by the writer's name and address, not necessarily for publication. Authors who desire reprints of their papers should make their own arrangements with the Printers when they return their proofs. All contributions to be addressed to *The Editor*, who does not accept responsibility for the views expressed by contributors.

The Opening of the Ground at Honor Oak Park and the Rugby Football Club Dinner

THE new stand, pavilion and extensions to the ground at Honor Oak Park were officially opened on Wednesday, January 29th. The ceremony was performed by Mr. Eason, who, despite the chill, dank day, somehow managed to warm us with wit. This was a great day for the Rugby Football Club, and indeed for the Clubs' Union as a whole, and marked the end of a long battle against great obstacles. We do not think we are the victims of a conditioned reflex when we say that the drainage, which has been " better " every winter in the history of the Club, at last really *is* better. The new extensions to the Pavilion are eminently satisfactory, the increase in land is desirable from every point of view, and, best of all, the old stand was burnt down and we have a new one. We doubt if there is now a better equipped ground in London. Following the opening ceremony was the match against Cambridge University, an account of which will be found elsewhere. Among the spectators were many of the distinguished in the Rugby world, and many old Guy's men were numbered among them. After the game, those who had expended energy on the field imbibed it in the Committee Room, while tea was provided (seemingly for thousands), and the indefatigable Mr. Winston was here, there and everywhere, and had organised the afternoon to the point of perfection.

The Annual Dinner of the Club was held the same evening at Grosvenor House, and there was therefore an element of luxury which has not always been present in the Club dinners in the past, what with flowers and napery (we believe that is the word) and carpets like the skins of peaches. We met each other on a dais above the dining tables, which was used as a sort of promenade deck before the serious part of the evening began, and when the tongues were just so much loosened that thoughts were fluent and there was a polish to the conversation, the company sat down to dine. " It was thoroughly English," said M. Poiret in some reminiscence, " the company was distinguished and the food exceedingly bad." We wished we had had M. Poiret with us, for he would have learned a thing. The company was distinguished, and the food was exceedingly good. There were present Mr. Greenwood, the President of the Rugby Football Union, and Commander Cooper, the Secretary, while the Scottish Union and Selection Committee was represented by Mr. Drysdale, and the English Selection Committee by Mr. Coverdale ; Surrey was represented by Mr. Trollope, and Kent by Mr. Wilkins. There were also, if the metaphor be not too bold, stars from other fields. Of the Governors, there were present : Mr. Whitbread, Captain Whaley, Mr. Nesbitt and Mr. Raphael, while everywhere the room glittered with stars of the medical profession. After Mr. Hughes, who was in the Chair, had proposed the toast of the King, which perhaps we drank with other thoughts than usual, Mr. Doherty proposed the toast of the Rugby Football Union. Mr. Greenwood responded ; we will not give away Mr. Doherty's past in print. Mr. Eason proposed the toast of the Hospital Rugby Football Club in a happy speech, to which Mr. Darke replied, and was followed by Mr. Eckhoff, who proposed the guests, and the reply on behalf of the guests was made by Dr. Edward Morgan. It was interesting to see this famous figure, and yet Dr. Morgan was one of the disappointments of the evening. Not that, since we have always heard of his famous try, his appearance did not come up to expectations, nor that his speech lacked anything ; on the contrary, both had all the qualities. It is impossible to sit in a rugger circle at Guy's and not hear of " Teddy Morgan's try," but one is also supposed to know what it was, and how it happened. To put the question boldly is an impossibility for the shy, and we must confess we had rather hoped that we might learn the secret. But, although the event was referred to many times, we never found out just what happened, and what was the occasion. Other speeches duly followed ; Mr. Laborde, the captain of the Cambridge team, Mr. Gadney, who had refereed the match in the afternoon, and Mr. Wakelam all contributed, the last in a vein that deserved that overworked word " brilliant."

Mr. Hughes managed to avoid a speech by trying to trick the Dean into telling a story, in which he very nearly succeeded. The last that we saw of the Dean was a hastily receding figure, while the diners shouted, " Story, story." But we never heard it. That, and the fact that we never learned the inner history of Dr. Morgan's try, were the only regrets of a very pleasant evening. The Rugby Football Club, and Mr. Winston especially, are to be congratulated on the organisation of such an enjoyable day.

Reviews

Incompatibility in Prescriptions. By T. STEPHENSON, D.Sc., F.R.S.E. Published by the *Prescriber*. Pp. 62. *Price* 6*s*.

THE value of this little book to the medical man lies mainly in its second and larger half. Here, listed alphabetically, are about 150 common drugs with a short account of their physical properties and of the drugs with which they are incompatible.

For the practical dispenser there is an early and general review of the subject which is considered under the three heads of chemical, physical or pharmaceutical, and therapeutic incompatibility. In it are many valuable hints for the preparation of " elegant " mixtures.

In the section on therapeutic incompatibility Mr. Stephenson modestly contends that he has little to tell the medical man in this field, and confines himself to descriptions of the unhappy results to the skin of the successive application of mercury and sulphur ointments. This selection of medical blunders might well have been elaborated without detracting at all from the value of the book.

The fourth edition of this work since its original publication in 1915 is in accordance with the 1933 British Pharmacopœia and the 1934 British Pharmacopœia Codex. It is a slim volume containing much easily accessible information for those who dispense their own drugs.

Olaf and Hakon; A Saga Play, with an Introductory Essay on Dramatic form. By CHARLES WHITBY, M.D. Published by Messrs. John Bale, Sons & Danielsson. *Price* 2*s*. 6*d*.

DR. WHITBY has transcribed a page from ancient Norwegian history into a play. It deals with the struggles and ultimate success of Olaf—the rightful heir—to depose the upstart King Hakon.

Olaf is of unbelievable nobility, and Hakon so vicious a character that the contrast borders on the melodramatic. Indeed, the lack of *finesse* in the characterisation is perhaps one of the weaknesses of the play. These is little feeling provoked either of " pity " or of " horror " at the behaviour of the characters. Instead there is represented a conquest of virtue over vice, sufficiently unadulterated with any mysterious working of inexorable Fate, to provide the material for a satisfactory morality play.

The author has chosen blank verse as his vehicle, and, although at times the metrical deviations are extreme, there are passages that are eminently satisfactory.

Dr. Whitby is of the opinion that blank verse is a suitable medium for the modern tragedy, and further believes that drama should remain true to the classic model. The strict formality of ancient drama was largely due, however, to the exigencies of the Athenian stage, and it would be foolish to insist on this academic objection to all " naturalism." So long as the unity of purpose—the only " unity," incidentally, on which Aristotle really insisted—is maintained, modern resources need not be denied, and the form of a play need not detract from its dramatic value. The emotions which a play should provoke are human ones after all, and I doubt whether one necessarily feels more pity for a character whose sufferings are declaimed in verse, rather than in the language of the audience.

Dr. Whitby deals with his reasons for choosing a metrical form in the preface, although they are unfortunately rather obscured by a multiplicity of references to minor dramatists, and an *apologia* for Byron. He there suggests that Shakespeare, presumably a member of what is impolitely termed the " Elizabethan hotch-potch," produced a " panoramic imitation of life's accidents and superficialities " rather than a " world of pure form and essential truth." I cannot imagine what this latter world is like. Again, to state that Mr. Shaw's " emotional tension is generally low " rather understates the ability of a master both of English prose and of dramatic technique.

Although there is much to find in the essay with which to disagree, it is on this account more stimulating. Dr. Whitby has certainly shown that a play can still be written which is eminently readable, and I have no doubt, possible of successful production, although in a style which I venture to think out-worn.

N.M.

Sport

Rugby

Guy's v. Cambridge University

WEDNESDAY, January 29th, 1936, will be remembered by many old Guy's men who visited the ground at Honor Oak Park and witnessed the game with Cambridge University, which the Hospital lost after a hard struggle by a goal and 2 tries (11 points) to a try (3 points). Prior to the match the new grandstand, extensions to the pavilion and enlarged sports ground were officially declared open by

Mr. H. L. Eason, C.B., C.M.G., Vice-Chancellor of the University of London, and there was a very large gathering of Rugby officials and players to witness the opening ceremony.

In addition to representatives of the Rugby Union, Home Counties, Hospitals and London Rugby Clubs, former Guy's captains present included Dr. " Teddy " Morgan, Dr. A. Alcock (President of the Gloucester R.F.C.), Windsor H. Lewis (Hon. Treasurer of Cambridge University), J. E. Giesen, T. Morgan, Ian Robin and J. R. F. Popplewell.

Mr. Eason was introduced by the present Chairman of the Clubs' Union, Mr. W. D. Doherty, an old Cambridge Blue and who captained the Rugby Club in their successful seasons from 1920-1922. A report on the proceedings appears in another column.

Cambridge paid Guy's the compliment of fielding their strongest available side, which contained nine old Blues. In view of the International between Scotland and Wales, Wooller, Cliff Jones and Fyffe were unable to play for Cambridge, and R. C. S. Dick was unable to turn out for Guy's.

It was expected that E. S. Nicholson, the English hooker, would make his first appearance for the Hospital, but unfortunately, an injury he received against Wales prevented him from playing.

Continuous rain had made the ground very heavy and muddy, but in spite of the conditions a very keen game was seen and many surprisingly good movements were carried out. Cambridge deserved to win, for they had much more drive and thrust behind the scrum than Guy's; the handling of a very slippery ball by the 'Varsity backs was excellent, and but for some first-class tackling by Hartley and Wright, they might have crossed the line more often than they did.

The Hospital forwards who were opposed by six old Blues held their own in the set scrums and performed exceedingly well in the lines-out, but Cambridge held a decided advantage in the loose, where Laborde, Cocks and Wilton were conspicuous in remarkable dribbles in which the value of foot-control played a prominent part in many dangerous raids.

Low and Kemble at half-back had a wonderful understanding, and were a constant menace; ably supported by Rawlence, Roden and Mallett, they were repeatedly on the offensive. Stanyon-Jaques and Allen were good in defence, but the Hospital backs were unable to get moving in the same smooth manner.

Following the kick-off, mid-field play followed, until the Hospital forwards led a fine raid into the visitors' 25. Guy's tried hard to create an opening for an early lead, but they were met by a sound defence, and Parker eventually cleared to mid-field. Against the run of play, Cambridge took the lead when Kemble broke away from a scrum, cut inside and passed to Mallett, who eventually sent Rawlence over for an unconverted try.

Guy's attacked immediately, and on one occasion E. R. Davies broke clean through, with Kark in support, but unfortunately the latter failed to hold the pass. However, the Hospital kept on the offensive, and Allen drove the 'Varsity back with a fine kick, which found touch near the corner flag.

Following a line-out and a severe struggle on the visitors' line, Darke obtained possession and, seizing the opportunity, threw himself over the line for a try, which Kark just failed to convert.

Guy's continued to have the better of the game, but over-anxiety drove them back as the result of penalties awarded for offside. For a time the Hospital lacked the services of their hooker, P. K. Hopkins, who damaged a leg, but he was able to resume before Cambridge took the lead.

At this stage, thanks to the clean heeling of the forwards, Stanyon-Jaques was proving a live wire, and sent out many chances to the Hospital threes, but very little progress could be made.

Near the interval the Cambridge forwards improved considerably, and Laborde led a splendid rush in which they dribbled the ball for some thirty yards and both Laborde and Wilton touched down as the ball crossed the line, Parker converting from an easy position.

The second half was not nearly so exciting, and for some minutes the play was very uninteresting. The Hospital forwards, who had performed exceedingly well, tried their utmost to force a passage, but could make little headway against a strong defence. On the other hand, the Cambridge threes were speedier, and this affected the play of the Hospital pack. Both Darke and Fletcher dropped back to defend these thrusting attacks, and succeeded in preventing any further score until towards the end, when Rawlence ran into the centre from the right wing and, brilliantly accepting a pass from Kemble, scored near the posts, but Parker missed an easy kick at goal.

Team.—C. Halamandres; J. L. G. Hartley, C. G. Wright, J. van A. Steytler, D. H. Douglas; R. D. Allen, K. A. Stanyon-Jaques; M. R. Kark, P. K. Hopkins, H. H. Crabb, E. R. Davies, E. R. French, P. Fletcher, C. S. Darke (Capt.), R. O. Yerbury.

Guy's v. Aldershot Services

GUY'S paid their first visit to Aldershot on Saturday, February 1st, and after a closely contested match, the home side were successful by 2 place goals and a try (11 points) to a placed goal and a try (8 points).

The Hospital were by no means at full strength, as Hartley, Allen, Fletcher and Hopkins had to cry off on account of injuries and Dick was captaining Scotland in the International against Wales. However, E. S. Nicholson made his first appearance for Guy's and proved a great asset in the set scrums, where the Hospital forwards had a definite advantage. The Services' three-quarters did not get so good a service from the base of the scrum, but they made full use of the few opportunities that came their way. On the other hand, the Hospital back division, especially in the second half, when they were definitely on top allowed many chances to go astray, through ill-directed passes and misunderstanding.

The first real attack by Aldershot produced a try; the three-quarters were set moving by Wheatley, and Moran, sighting a gap in the defence, raced through, punted ahead, and touched down for an unconverted try.

Following this reverse, Guy's pressed hard and should have scored on at least two occasions, but faulty passing allowed the Services to step in and relieve.

Near the interval another Hospital effort met with better results, and after the forwards had heeled cleanly from a scrum, Baxter sent Wright through the centre and, after a brilliant run of forty yards, the latter scored a splendid try, which Kark converted with a glorious kick from near the touch-line.

The Services were not long in replying, and a splendid try rewarded their efforts. Following a loose scrum, the ball was passed very rapidly until it reached Linton. The latter side-stepped three opponents in his efforts to reach the line, and finally grounded the ball under the posts for Sayers to kick an easy goal.

The Services went further ahead when Moran again cut through the centre and, with Sayers in support, the latter took the final pass to score a try, to which he added the goal points.

After this reverse Guy's roused themselves and from then onwards had complete command of the game. At one time it looked as though they would succeed, especially when van Steytler raced through for an unconverted try.

The Hospital backs had many opportunities to snatch a victory, but the defence of the Services held out and succeeded in retaining their lead.

Team.—C. Halamandres; D. M. Douglas, J. van A. Steytler, C. G. Wright, R. M. de Gregory; A. B. Baxter, K. A. Stanyon-Jaques; M. R. Kark, E. S. Nicholson, H. H. Crabb, E. R. Davies, E. B. French, C. G. Sharp, R. O. Yerbury, C. S. Darke (Capt.).

Guy's v. Coventry

AT Honor Oak Park on Saturday, February 8th, the Hospital accomplished their best performance of the season by defeating Coventry after a hard struggle by a placed goal and 2 tries (11 points) to 2 tries (6 points).

This was the visitors' first defeat since October, and although they had four of their regular players on duty in Dublin, one cannot deny the Hospital merit for their fine display.

The combination of R. C. S. Dick and C. G. Wright was responsible for the points registered for Guy's. These two players had a wonderful understanding and worked admirably together.

On two occasions the former cut through beautifully and created the openings which gave Wright his opportunities; several times later in the game the same combination "all but" crossed.

Stanyon-Jaques, who was not well before the match started, was not very happy at the base of the scrum, and on several occasions his passes to Allen were wide of the mark. The latter did exceedingly well to hold them, but, as a result, the back division had to slow up and the three-quarters found it difficult to get off the mark quickly.

Up to a point the forwards did well against a heavier pack, but they did not give Darke and Nicholson all the support in the set scrums that they might have done.

Towards the end the Coventry forwards pressed heavily in the Hospital's 25, and Guy's were fortunate to prevent them from crossing.

Following the severe frosts experienced during the week the ground was so hard that at one time it was doubtful whether the game would be played. However, a strong sun made play just possible, and, although slippery on the top, the ground yielded as the game progressed.

The match was full of exciting incidents, whether in sharp passing runs, clever finesse behind the scrums, fast dribbles or slogging scrums and the pace was great throughout.

In spite of the fact that they had to oppose a keen wind, Guy's took the initiative from the kick-off and, within four minutes, had taken the lead. Dick burst through the centre and passed to Wright, the latter punted over the full-back and Dick, anticipating the movement, raced up to

secure the touch-down for a try, which Kark converted.

For a time Coventry held their own, and one fine effort between Stock (their reserve scrum half), who played a magnificent game, and Clarke nearly led to a score, but Halamandres saved splendidly.

After a spell of even play, Guy's again attacked, and Dick carried out a glorious opening by drawing the whole defence before sending Wright in for a try near the corner flag.

The visiting forwards then attacked desperately, and after a great forward battle and following several scrums near the Hospital line, A. Wheatley succeeded in registering an unconverted try in the corner.

Another passing movement between the Hospital threes was the next feature, and the ball eventually reached Dick, who created another superb opening before sending in Wright, who had to cover some thirty yards before reaching the line. Kark had bad luck in not converting, his kick hitting the upright.

Near the interval Coventry reduced the deficit when Stock started a movement on the blind side and, with Mayo and Clark in support, the latter finished off an excellent movement for a try, which was not converted.

The second half was contested at a great pace, both sides taking scrums for lines-out and had an equal share of the ball.

A fine bout of passing between the Hospital threes should have resulted in another try, but Douglas, after crossing the line, tried to ground the ball in a more favourable position, but in doing so, put a foot over the dead-ball line.

A little later, following two or three scrums in front of the Coventry posts, Stanyon-Jaques stole away on the blind side and touched down for a try near the posts, but unfortunately he knocked on in the effort and from the scrum which followed, Guy's were penalised and driven back.

During the closing stages the visiting forwards pressed heavily and made the Hospital defend their line desperately. Guy's were fortunate in keeping their line intact, and it came as a relief to the tension when the final whistle sounded "No side."

Team.—C. H. Halamandres; C. G. Wright, R. C. S. Dick, J. van A. Steytler, D. M. Douglas; R. D. Allen, K. A. Stanyon-Jaques; M. R. Kark, E. S. Nicholson, H. H. Crabb, E. R. Davies, E. B. French, P. H. Crampton, C. S. Darke (Capt.), R. O. Yerbury.

Association

Guy's v. Casuals

ON Saturday, January 11th, Guy's were at home to the Casuals and won 1—0, having drawn 2—2 with them earlier in the season. The football of both teams was below the usual standard, and too much aimless kicking resulted in a scrappy game. In defence, Guy's were slightly superior, but neither forward line could get together.

The winning goal came about ten minutes from the end, when Harvey netted a centre from Jones-Lewis.

Team.—D. W. Drew; R. C. Jackson, D. G. Sharp; D. W. Bugg, G. W. Dorr, H. A. Lee; G. C. Sprigings, Lewis-James, R. W. Harvey, G. G. Rees, H. Jones-Lewis.

Boxing

Guy's v. Bart's

GUY'S defeated Bart.'s at Bart.'s on Tuesday, February 11th, by 4 events to 2.

Feather-weight.—A. Halamandres defeated T. P. Storey (Bart.'s) on points after a close encounter. Halamandres boxed coolly and built up his points mainly by the use of his left hand.

Feather-weight.—D. B. Sedgwick lost after the referee's casting vote. The fight was extremely close, and the margin of points separating them at the close must have been extremely small. Sedgwick may be considered rather unlucky to have lost.

Light-weight.—The surprise of the evening was brought about by the defeat of C. Halamandres by J. W. G. Evans. Halamandres won the first round by a clear margin and appeared to have the fight well in hand by the end of the second round. Evans rallied well and placed several good right-hand punches. The referee was again called upon to give his casting vote, which occasioned a little surprise.

Welter-weight.—A. Bloom against a tenacious opponent in A. L. Thomas lasted well and, making good use of his left hand, gained a fairly easy decision.

Middle-weight.—A newcomer to boxing in A. S. Lee made an auspicious start by defeating J. W. Perrott, the referee stopping the fight in his favour halfway through the second round. His opponent, who was rather lighter, fought pluckily, but Lee's punching at close quarters was rather too good.

Heavy-weight.—P. Fletcher was an easy winner on points against A. Sandiford. His punching was much heavier than his opponent's, and he was not greatly extended.

Hospital Information, etc.

Notices

GUY'S MUSICAL & OPERATIC SOCIETY "PRINCESS IDA"

TICKETS for "Princess Ida," to be produced by the Musical and Operatic Society at the Fortune Theatre, Drury Lane, commencing Tuesday, March 3rd, and concluding Saturday, March 7th, are now on sale. The heavy expenses of the production are met entirely out of the proceeds on the sale of tickets, and it must be evident to everybody that a large attendance is essential to ensure its financial success. We understand that the high position occupied by the Society in amateur operatics will be fully maintained, and that the production will be well up to the standard of previous years.

It is hoped that all Guy's men, past and present, will make a special effort to attend one of the performances. Further particulars may be obtained from Mr. G. A. R. Winston, the Hon. Ticket Secretary. Seats are priced at 10*s.* 6*d.*, 7*s.* 6*d.*, 5*s.*, 3*s.* 6*d.*, 2*s.* 6*d.* and 1*s.* 6*d.*

NUFFIELD HOUSE

The Telephone Number of Nuffield House has been changed from *Hop* 1395 to *Hop* 1864.

THE DENTAL DINNER

As announced in our last number, this function will take place on March 7th.

Pass List

CONJOINT BOARD.
January, 1936.

M.R.C.S., L.R.C.P.

FINAL EXAMINATION.

Pathology.

J. W. Clegg	D. S. Theron
K. Chartikavanij	C. R. Tilly
W. F. Dunham	F. D. Truax
D. L. V. Fraser	A. S. Woolstone
O. Hughes	A. L. Young
E. Rosenberg	Z. E. Zuckerman
A. J. Smith	

Medicine.

*A. B. Baxter	*H. M. Kelsey
*B. B. Bridges	*H. A. Leggett
*C. S. Darke	*F. L. E. Musgrove
*W. M. van Essen	*L. Merrill
*D. F. Freebody	*G. J. van der Merwe
*H. R. S. Harley	*N. O. Paterson
*R. K. R. Henry	*C. W. H. van der Post
*B. W. Hunt	*E. Sayle
*E. Kaplan	*G. N. Wright

Midwifery.

A. G. T. Brown	J. M. Lea
*B. J. Doran	A. J. Smith
W. F. Dunham	G. E. Yardley
H. R. W. Franklin	A. L. Young

Surgery.

J. M. Brown	J. M. Lea
G. D. Channell	H. R. Loughran
W. W. Gilford	F. E. Pitt-Payne
*A. G. W. Hill	*E. Sayle
E. H. Jones	*J. S. Stuart

* Have now qualified.

SOCIETY OF APOTHECARIES OF LONDON.
FINAL EXAMINATION.
January, 1936.

Forensic Medicine.

E. E. Evans.

Midwifery.

*G. B. Barbour	E. E. Evans

* Has now qualified.

UNIVERSITY OF CAMBRIDGE.
APPROVED FOR THE DEGREE OF M.D.
John Gray.

Papers by Guy's Men

L. J. Witts. Prognosis in asthma. *Lancet*, 1936, i, 273.

N. Mutch. Synthetic magnesium trisilicate. *Brit. Med. Jour.*, 1936, i, 205.

N. Mutch. The silicates of magnesium. *Brit. Med. Jour.*, 1936, i, 143

Stanley Rowbotham. Cyclopropane. *Proc. Roy. Soc. Med.*, 1936, xxix, 257 (Sect. Anæsth.).

Frank Law. A congenital retinal anomaly. *Proc. Roy. Soc. Med.*, 234 (Sect. Ophth.).

J. Draper Cambrook. Snake venom and its use in dental hæmorrhage. *Ibid.*, 281 (Sect. Odontol.).

F. N. Doubleday. Two unusual cases of impacted mandibular third molars. *Ibid.*, 282 (Sect. Odontol.).

J. J. Conybeare. Hysterical tetanus. *Clin. Jour.*, 1936, lxv, 66.

N. Mutch. Hydrated magnesium trisilicate in peptic ulceration (with charts). *Brit. Med. Jour.*, 1936, i, 254.

W. W. Payne and Another. Glycogen disease (von Gierke's Disease · hepato-(nephro) megalia glycogenica (plates). *Quart. Jour. Med.*, 1936, N.S. v, 31.

Appointments

Geoffrey Bruce Ebbage, to be Resident Surgical Officer, Birmingham and Midland Eye Hospital.

J. B. Blaikley, appointed Surgeon to Out-Patients, Chelsea Hospital for Women.

Marriages

EDNEY-ALLEN.—On February 7th, 1936, at the Kensington Registry Office, Harold Edward Edney, L.D.S., R.C.S. Eng., of 2, Addison Road, Bedford Park, W.4, to Eileen Allen, of 42, Abingdon Road, Kensington.

TINKLER—SCULL.—On January 18th, 1936, at St. Margaret's Church, Rochester, Kent, Stanley Norman Tinkler, L.D.S. Eng., of 151, Lichfield Street, Walsall, Staffs, to Enid Marion, eldest daughter of Mr. and Mrs. H. J. S. Scull, of St. Lawrence, Borstal Road, Rochester.

Births

ROWLANDS.—On January 26th, 1936, at 45 Wimpole Street, W, to Betty, wife of John E. Rowlands—a son

EDS. { P. W. C. / M. A. P.

GUY'S HOSPITAL GAZETTE

A Journal of Medicine, Surgery, Dentistry and Hospital News.

PUBLISHED FORTNIGHTLY.

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PASSIM

IT is an old story of the man who, during his three years at Guy's, played two games of lawn tennis, and remarked that they had cost him seven and a half guineas each. The annual subscription to the Clubs' Union is five guineas, and its full value is only nearly obtained by those who play organised games with regularity. But what about that majority who do not? What do they get for their five guineas annual expenditure? Oh, they get the freedom of the Restaurant, the Reading Room and the "Spit," not to mention the right to use the coatstands in the corridor, and that is a privilege that may cost them the coat. If, on the other hand, they do not pay their five guineas, they are debarred even from these comforts, and consequently shut out almost entirely from such social life and contacts as the Hospital can afford them. He who does not pay may not even attend a Physical Society meeting, or step into the College to answer a call on the telephone. Nor is there any reduction for those who do not play regular games; they pay five guineas and may come in, or they don't and are shut out. Does it seem that these people are getting a fair deal for their money? When it is considered that the sum payable is, as a correspondent has observed elsewhere, not less than the subscription to many of the lesser West End clubs, it seems that they are not. We are not concerned, in this short life, with the allocation of any blame, for the Clubs' Union pays two hundred pounds a year to the College for this accommodation as well as supplying all the sporting facilities for the Hospital, and the responsibility for the College must devolve ultimately, one supposes, on the Medical School. But what we are concerned with is that the present state of affairs is thoroughly unsatisfactory. We publish a letter elsewhere from an old Guy's man saying that it speaks much for the *esprit de corps* of the Guy's fraternity that more complaints from parents have not been received concerning the accommodation provided for their sons. We were at first inclined to view this remark with a half-smile, but, on considering the position as we state it above, we feel that there is much in what he says. We have remarked before on the absence of heating, the inadequacy of the four baths in the basement, the bleakness of the stone corridors; one has only to make mention of the Heath Robinson beds, the darkness necessitating in many rooms the continuous use of artificial light (this is electric now), and the presence of LICE to complete a picture of insanitary wretchedness. We have more than once found coleoptera, and this made us wonder whether it was not, perhaps, on this account that in some of the rooms the beds are protected from any but aerial attack by these monsters through the ingenious method of having them folded up behind the bookcase.

In this connection, in a spirit of interest and quite without animosity, may we say that we were sauntering down to breakfast one morning last week when, on feeling in the editorial pocket, we felt an unaccustomed sensation, and to our astonishment drew out an animalcule. This was of considerable size, about, one would say, three-quarters of an inch long, and of the colour of old Spanish leather. We regret that in our alarm we failed to keep it for Professor Nicholson's advice upon its nature. Our clothes had been hung up in our College bedroom the night before. The finding of such an animal was, we hasten to add, the first such experience we have ever had, but then we have not been in the College so very long.

In this connection, there is one well-known plague pit looking on to Sparrick's Row. This room, owing to complaints, has had to be disinfected within our memory, but whether the creatures were accustomed to live there or were merely introduced by small boys who have, before now, been known to climb in through the bars from the street, it is not possible to say. But we have the word of a former tenant of that paradise

for parasites that one day he actually contrived to seize the hindquarters of an invading male child who, perhaps owing to better nutrition, had more difficulty than his fellows in making his way through the bars whence he had entered.

Yes, we need new students' club quarters, for they are actually owed to the subscribers, but we should also have a new residential College. We said a fortnight ago that we had approached the Students' Club Committee, and that they were in process of writing a letter to the Clubs' Union Council to secure their support, if possible. That letter has been written. The Clubs' Union Council meets on receipt of any such request, and we hope that in our next issue we may be able to report that this letter has been favourably received, and some plan of action adopted. We have much support, and someone willing to organise a fund. All that remains is to hope that we may gain the support of authority. This *spes phthisica* must be the earnest wish of all who live in the College.

WE congratulate the First XV on defeating St. George's Hospital by 28 points to nil in the second round of the Inter-Hospitals Cup. The next match, against St. Mary's, will take place at Richmond on Tuesday, March 10th.

ON Tuesday, March 3rd, at 7 p.m., the Inter-Hospitals Boxing Competition will be held at the Stadium Club, Holborn. As a result of the efforts of the Club officials and Alf Hewitt, the trainer, we have, for the first time for many years, a representative in every weight. Members of the Boxing Club have, moreover, already the experience of several fixtures, and we are sure that the team will make a strong bid for the Championship Cup. Tickets, which are 10*s*., 5*s*., 2*s*. 6*d*. and 1*s*., may be obtained from the Honorary Secretary, Mr. P. Fletcher, of the Dental School, or from the Medical School Office. It is hoped that as many as possible will come to support the team, which has trained so assiduously.

IN the first inter-hospitals ice-hockey match ever held Guy's were narrowly beaten by St. Thomas's 3—2, at the Empress Stadium, Earls' Court, on February 18th. We shall publish an account of this, which was a very exciting game, in our next number, and hasten to congratulate the team on acquitting themselves very well against a much more experienced side. The compassion of the audience was aroused, if it be not presumptuous to say so, by the somewhat naked appearance of our own team, who lacked much of that protective paraphernalia which alone renders this game comparatively safe. We understand that the Club owes much to the encouraging support of Mr. Slesinger, who, having helped the Club in many ways, has also undertaken the position of President.

There is to be a return match against St. Thomas's at the Empress Stadium at 6 p.m. on Thursday, March 6th, at which it is also hoped that as many supporters as possible will be present.

The Hospital had four representatives in the United Hospitals' team which defeated the Cambridge Esquimoes.

AN anonymous correspondent has sent us a pearl from the evening press (Mist. Metaph. Co.), in republishing which we must acknowledge our debt to the *Evening News*.

" It was at the 'bus terminus at London Bridge. A 'bus was just leaving, when a passenger called excitedly to the conductor, ' Wait a minute, there's a lady trying to catch the 'bus.' The conductor turned to look, and only smiled. ' Lor' love ye,' he replied, ' that's only one of Guy's nurses. We don't wait for them ; they runs like 'ares and climbs like cats.' "

And this he divined without ever having seen them in the wards ?

A FRIEND of ours who keeps a finger on the Hospital pulse, noticed a new tie in vogue the other day. In these times, when the fashion is for small designs on a homogeneous background instead of the old-fashioned gaiety of stripe, he was not surprised at the general design of the tie until, on looking closely, he observed that against the blue background was poised a number of darts-boards. This, he learned, is the tie of those who, no doubt having been driven from the College to the comparative comfort of the " Jolly Miller of Mansfield," have formed a club of their own. We understand that they maintain a high standard and can far more than hold their own against the local talent. They are " up in Annie's room," they get their " bed and breakfast " and " go Whitstable " with the best. The Miller has long had an attraction for students of midwifery as being " nearest the Centre," and it is only a step across the way to a double twenty and a double Scotch.

WE would remind our readers that the Annual Subscription to the *Gazette* and *Directory of Guy's Men* (*Medical and Dental*), 12*s*. 6*d*. per annum, post free, is now due, and should be forwarded to The Manager, *The Gazette* Office, Guy's Hospital, S.E.1.

OWING to sickness and other causes, we much regret that our review of the Residents' Play is being held over until our next number.

Obituary

DR. LLOYD MIDDLETON BOWEN JONES

THE death occurred recently at The Friary, Carmarthen, of Dr. Lloyd Middleton Bowen Jones, at the age of 83. He had been Medical Officer of Health for the Borough of Carmarthen for 33 years, and of Carmarthen Rural District for 41 years. He retired from these posts two years ago, but, at the time of his death, occupied them again pending the appointment of a joint medical officer to the two authorities.

A son of the late Rev. R. Bowen Jones, rector of Cilymaenllwyd, near Whitland, he was trained for the medical profession at Guy's Hospital.

He was in the forefront of the fight against tuberculosis, and was personally instrumental in collecting large sums of money for the erection of the West Wales Sanatorium at Alltymynydd, Llanybyther, of which he was honorary secretary until it was taken over by the Welsh National Memorial Association. He was chairman of the House Committee, and some 18 months ago an additional ward opened at the sanatorium was named the " Bowen Jones Ward " in recognition of his valued services to the institution.

Dr. Bowen Jones was also for many years chairman of the Welsh National Memorial Association.

He was also keenly interested in child welfare, and initiated a minor ailments clinic at Carmarthen which led to the establishment of the Maternity and Child Welfare Centre in the borough.

Dr. Bowen Jones was a Fellow of the Society of Medical Officers of Health, a member of the Sanitary Institute and an ex-president of the West of England and South Wales branch of the Society of Medical Officers of Health. At one time he held the rank of captain in the R.A.M.C. (Territorials).

Dr. Bowen Jones was a former chairman of the Carmarthen Gas Company, and an ex-president of the Carmarthenshire Bee-Keepers' Association. In politics he was a Conservative.

He leaves a widow and two sons—Dr. Edward Bowen-Jones, Cheltenham, and Mr. Walter Bowen Jones, who is farming in Canada.

Sudden Death from Natural Causes in Youth

By C. Keith Simpson, Esq., M.D.

DURING his period of clinical study the student quickly becomes familiar with the more common causes of sudden death from natural causes of persons over 50 years of age, and there exist many records of the pathological conditions responsible for fatal collapse in middle age or later years. Such incidents seldom occasion real surprise, for it is realised that the years must have taken their toll of both the heart and the vasculature, and that neither can bear the almost unlimited strain they bore so quietly in youth.

In youth, however, the catastrophe of sudden, unexpected death is less common, except under circumstances of accident—legal accident, including, for instance, the unexpected effects of anæsthesia and operation—of suicide, crime, or where serious clinical illness has been recognised owing to the complaint of symptoms.

When all of these circumstances have been excluded, a remarkably small number of sudden deaths under the age of, say, 35 years ever come to the attention of the medical student.

During the three years 1933-1935 a total of 1,723 post-mortem examinations was performed at Guy's Hospital, and of these, five cases only were of sudden death from natural causes involving persons under the age of 35. The figure represents a little under three cases per 1,000. Of the admissions " Brought In Dead," 102 in all during this period, the proportion is, of course, higher, being about 5 per cent.

This rather short period of three years has been taken because it represents the average total period of clinical study. If the student were to attend every single post-mortem examination at the Hospital for the three-year period of his ward studies—a sheer impossibility—he might reasonably expect to see five cases of sudden death from natural causes in youth. In actual practice, he will be fortunate even to see two such cases; he may never see one at all, in spite of a fairly assiduous attendance in the mortuary.

Now, cases of sudden death under the qualifying circumstances mentioned, that is excluding accident, suicide, crime, and recognised illness, and

under the age of 35, are not so uncommon as these figures would lead one to believe. The majority of cases of sudden death at any age taking place in streets, buildings, vehicles and other public places are examined for the purpose of the Coroner's Inquiry in Public Mortuaries, and "no unauthorised person may be present." The student, who may shortly, as a qualified practitioner, be called upon to give his opinion upon the circumstances and findings of such deaths, has no opportunity of making himself familiar with their nature.

During the same period, 1933-1935, I have records of 42 post-mortems performed upon such subjects, and it is because this figure represents the experience to be gained in this particular sphere over a period of 20-25 years of continuous attendance in the mortuary of a large teaching hospital like Guy's, an experience it is devoutly hoped no student will ever require before qualification, that I discuss the matter in this journal. Such cases form a small proportion of the sudden deaths even for public mortuaries; the condition is not of everyday occurrence, but there can be little question that you will meet such cases and may regret having given the subject such little thought as is usually accorded to it. It is particularly in investigations into the deaths of young persons that suspicion may so easily be aroused, and needless demands may be made upon the services of the pathologist or the toxicologist when a knowledge of the special circumstances of death from natural causes at such ages might clear the matter up without casting suspicion upon the relatives. Twice recently I have been asked to see the materials from completed post-mortem examinations with regard to the necessity for analysis, and in each case found occlusive ante-mortem thrombus in an unopened branch of one of the coronary arteries; the deaths were quite natural, but suspicion had been aroused by a recently ingested "hot dog" in one case, and by police knowledge of the dwindling affections of a wife in the other. The same suspicion may attend sudden death in youth, for these fatalities are arresting and may often demand more care in their elucidation; unless the examination has been conducted with meticulous attention to detail, the changes responsible for death may be most easily overlooked.

The common causes of sudden death in later years—coronary occlusion, myocardial disease, chronic disease of the aorta, and hæmorrhage into the brain from diseased vessels or softened brain substance—are not to be expected in earlier years except as rarities. One case only, for instance, in the 42 which were examined, was of coronary occlusion and myocardial disease. It occurred in a Post Office sorter, aged 29, who dropped dead from his bicycle whilst returning home one afternoon. He had had three teeth extracted under local "mandibular block" anæsthesia six hours before, but had been back at his work the whole afternoon, having cycled two miles to the Post Office after the extraction. There was no evidence that the disease, coronary thrombosis with myocardial infarction, differed in any way from that seen in older persons. The absence of anginal pain is a frequent experience, especially in older people. This specimen is exhibited in the Gordon Museum to illustrate the rare occurrence of the condition at such an early age.

On the whole, the causes of death in earlier years show more variety, and it is only of those cases illustrating the more common causes that I wish to write in any detail. The literature upon the subject consists entirely of individual records of rare cases ranging from vicarious menstruation into the intestinal tract to such obscure matters as bone-marrow heterotopias of the adrenal medulla. Such rare causes of death deserve no more than to be put on record.

SUDDEN DEATH IN INFANCY

There can be little question that in infancy death often occurs with very slight anatomical changes. Not infrequently, little or nothing is found by the pathologist. He may feel satisfied that death was due to natural causes, but be at a loss to ascribe it to any particular organ or disease. W. G. Barnard once remarked to me at such a post-mortem, "It is a pity we cannot use the legal 'Act of God' sometimes." So often may one be reduced to applying the label "atelectasis," or the functional "diarrhœa and vomiting," when one might be more justified in describing a functional lapse like vaso-vagal or nervous inhibition. There can be no doubt that sudden nervous stimuli may seriously embarrass respiration and fatally affect the control of cardiac rhythm. The post-mortem findings may be entirely negative. I shall describe one such case in this paper. Spilsbury reported three from his records early in 1934. I am not, of course, concerned with the acceleration of death from natural causes by fright or other nervous shock; such cases are common. A man who was celebrating his 56th birthday rather uproariously on Clerkenwell Station platform was approached by a police officer, who clapped a hand upon his shoulder to make an arrest for disorderly conduct. The elderly gentleman straightened up and then fell dead. He had advanced coronary atheroma and myocardial fibrosis

In young people and especially in small children the entire absence of natural disease is much more frequent, and the question of functional inhibition has often to be considered more seriously. Certain conditions, often regarded as disease, are normal to children. For instance, any child up to the age of two years, sometimes more, will show a patchy atelectasis of the lungs, whatever the nature of death, and many show the thin dilated small intestine, rather pink and with prominent lymphatic tissue, which is so often regarded as evidence of gastro-enteritis, even when history is lacking. The myocardium of children contains considerable amounts of fat under normal conditions, and it is a mistake to regard this as fatty degeneration.

This approach brings one to the question of the importance to be attached to thymo-lymphatic hyperplasia. " Status lymphaticus " has so often provided an escape for the pathologist hard put to find an adequate cause of death. It is precisely in this type of child that vagal inhibitory death may be most common. The English Committee which sat on the problem of status lymphaticus and reported upon its findings in 1931, recognised the wide limits of gravimetric measurement of the thymus in young persons. Death is clearly not due to the direct mechanical effects of a large thymus. It may, nevertheless, be due to the associated presence of an unstable vaso-vagal control, the upsetting of which may provoke sudden cessation of the heart beat, causing death if unrelieved. It is clear that the " lymphatic hyperplasia " may be absent. Greenwood and Wood conducted, in 1927, a long investigation into " status lymphaticus " as a clinical and pathological entity, and came to the conclusion that there was no evidence to justify them in assigning " the least importance to the recognition of these stigmata in the bodies of those whose deaths apart from status lymphaticus would in more pious but not in more superstitious days have been attributed to the visitation of God." Bratton, making a study, in 1925, of the relative sizes of the thymus glands in 337 healthy children under 16 years of age, shows that the weight in healthy individuals is so variable that it is impossible to say whether it is abnormally large or abnormally small in any one person. He adds, " We know of no gravimetric evidence that such a condition as status thymicus exists."

There is, however, a large group of pathologists who feel that, although the blame is not to be attached to mere thymic or general lymphatic hyperplasia, with or without hypoplasia of the vessels and the adrenal cortex, yet wide limits of thymo-lymphatic dimensions occur, and it is precisely in persons bearing larger lymph masses that sudden death without pathological disease is more frequently encountered. There *is* such a syndrome as thymic or thymo-lymphatic hyperplasia, but death is probably due to nervous inhibition in an unstable system, and in no sense to the anatomical peculiarities such persons may show. Such peculiarities are not always present in cases of sudden death without evident disease.

Now of these 42 cases, 12 were in infants less than a year old. I have excluded cases in which there was any question of accident, such as overlying. Of these twelve, there was ample natural cause for death in nine. The deaths in these were due to :—

	Age
Asphyxia : One by inhalation of vomit	4 m.
One in the spasmophilia of rickets ..	9 m.
Broncho-pneumonia, three .. 2 w., 1 m., 9 m.	
Acute tuberculosis of the lung	4 m.
Acute bacterial enteritis (Morgan 1)	3½ m.
Atresia of the ureters (pelvi-ureteric)	4 m.
Tentorial tear with sub-dural hæmorrhage (birth)	2 d.

In every case the child had either been found dead or had died suddenly without previous evidence of illness. Of the remaining three cases one was a new-born baby of 3 lb. 9 oz. born prematurely at the 27th week and living only three hours. Two cases remain, and in neither of these were there any very satisfactory signs of disease which might justifiably be termed fatal. One was that of a boy of 3½ months who " went slowly downhill after a circumcision four weeks earlier," and who died suddenly as the mother was putting him in a warm bath. There was no evidence of drowning, and I was satisfied that death was due to natural causes, but there was no disease to which I could ascribe death. The other case was also a boy, ten weeks old, the illegitimate son of a domestic servant from East Anglia, who had died shortly after admission in a welfare centre to which it had been taken for economic reasons. The findings were entirely negative, though the child had been said to have had a slight fit just before death took place, suddenly, after a feed. Though the circumstances might engender suspicion, there appeared to be no justification for regarding this death as due to other than natural causes. Now in each of these cases I have a note of prominent lymphatic elements, hypoplastic aorta and narrow adrenal cortices. I do not suggest for a moment that the deaths were due to pressure of the thymus on the trachea, but that these were probably inhibition deaths occurring in unstable subjects. Since I accept Bratton's work on the gravimetric measurement of the thymus I give little importance to its actual size, but rather gauge the general development of the

lymphoid element throughout the body. I have a similar note against the child who died of asphyxia with spasm of the glottis in rickety spasmophilia, and against no other in this group. It is clear that there can be no proof of the contention at the post-mortem examination, except by the absence of natural disease or of evidence of foul play. Minor " vaso-vagal attacks " can cause unconsciousness during life; may they not conceivably prove fatal when of greater severity?

In one of the remaining 30 cases between the age of 12 months and 35 years the conditions strongly suggested such a cause of death. The conclusions drawn were unaltered by analysis, and this case will therefore be considered first.

SUDDEN DEATH DURING ADOLESCENCE AND IN EARLY ADULT LIFE

An unmarried girl of 27 was about two months pregnant for the second time and said to be little interested in the matter. She was well, and had been playing with children in the yard of her mother's house an hour before she died. After taking a supper shared by four, she said she would go to bed, and took a glass of cold water with her, a practice of hers. She had retired only a few moments before her mother heard a cry and a heavy fall, and, going to the room, found the girl with only her shoes removed, dead on the floor. The glass of water was over half empty, and nothing else was found, until a search revealed a small box of vegetable pills of a harmless laxative type in a cupboard. At post-mortem, I found a two-months' pregnancy in perfect order; there was no evidence of interference. The heart was contracted and empty, but the most careful examination revealed no other abnormality whatsoever. In this case there were two circumstances suggesting the importance of analysis; the girl was for a second time illegally pregnant, and was probably recently aware of the fact, and, in addition, the mother was not trusted by the police. However, an analysis performed by a consultant toxicologist revealed no trace of any poisonous substance. This case was, I believe, a similar case of death from inhibition, due to the shock of drinking cold water. Spilsbury described three similar cases in 1934 in his Presidential Address to the Medico-Legal Society of London. Nasal douching, vaginal douching, and rapid drinking of very cold fluids may give rise to appreciable or even fatal shock, especially if the body be hot. Every now and then death takes place from sudden immersion in ice-cold water, and, though removal is effected with the utmost rapidity, revival fails to take place. I have records of several cases of suicidal or accidental leaps into the river Thames in which there was no evidence of drowning; death was by shock on immersion. There are other known dangers of a similar nature. In two cases of death under anæsthesia taking place in other hospitals collapse occurred suddenly during the course of a comfortable light anæsthesia as soon as the bladder was brought up to the abdominal incision by forceps. In another case the urethra of a boy of five years was drawn up to the skin under some tension when death suddenly took place. At this hospital several years ago a death occurred as a registrar was passing a urethral bougie on a perfectly fit man of 31, and there was no disease capable of causing death in any of these cases. Mr. Harris tells me of a sudden " death under anæsthesia " when vagotomy was performed in mistake for phrenicotomy.

These deaths must have been by nervous inhibition and heart failure. The verdict in the case of the pregnant girl was " shock by perversion of a normal nervous mechanism," and this, or the shorter " nervous inhibition," seems to be as suitable a title for the condition as any.

The other causes of death during and shortly after adolescence concern themselves with natural disease, and I propose to group them together. Most of the fatal diseases fall under the heading of acute infections, vascular anomalies, nerve shocks, endocrine deficiencies or rare pathological states. You see immediately how very striking is the difference between this list of common causes and the list to be considered with older persons. There are, of course, not sufficient cases in this small series to justify my giving you the relative frequency, but it is probably much the same in order as the arrangement just given. Let us consider them in this order.

ACUTE INFECTIONS

There are 14 of these in the series, and they group themselves so far as the cause of death is concerned into three types :—

(*a*) Those in which death was caused by hæmorrhage.

(*b*) Those in which some essential structure was pressed upon, obstructed, or destroyed by direct extension of the disease.

(*c*) Those in which there was severe intoxication or shock.

Two cases fall into the first group. They were cases of spontaneous hæmorrhage from tuberculous cavities in the lung, and require no special attention. The ages were 27 and 33 years, and both were females. In each case rupture occurred during moderate exercise, one walking in the street and the other standing in an Underground train, having just entered the carriage. In each case the

disease process was at least some months old, and of " secondary " type. Into group (*b*) there fall two cases also. In one, a boy of 12 years collapsed after running home from school, became extremely pale and dyspnœic, and died before a doctor could be summoned. He had a suppurating mastoiditis on the left side, and a large cerebellar abscess at least a week or ten days old. The brain was swollen and there was a deep impression over the medulla where it had become pressed down into the foramen magnum. The cause of death was in part, probably, intoxication, for he had some myocardial softening, but medullary compression was the immediate change responsible. The other case was one of laryngeal obstruction by diphtheritic membrane in a boy of five years. He was found dead in bed one morning, and a large partially detached piece of membrane lay across the true cords. He died, of course, of asphyxia.

In the third group (*c*) there occur the majority of the cases. They are as follows :—

	Age
Tuberculosis of the lungs	34
Massive tuberculosis of the kidneys, bladder and peritoneum	32
Lobar pneumonia, two	28, 30
Acute " influenzal " pneumonia	7
Streptococcal meningitis	17
Streptococcal septicæmia	20
Puerperal septicæmia (retained placenta)	33
Diphtheria (tonsillar)	29
Anthrax, septicæmia	26

Some of these require little special notice. It is fairly common knowledge that cases of chronic inflammatory disease, especially of the lung and of the kidney, may remain latent symptomatically, giving rise to gradual intoxication and associated with fatty and other myocardial degenerative change. Heart muscle failure is the usual immediate cause of death, and either fatty degeneration or brown atrophy is responsible. When lung disease is present additional strain is thrown on the right heart. For instance, one of the cases of lobar pneumonia in this series occurred in an employed prostitute who died under circumstances which threw unwarranted suspicion upon a patron of the establishment.

In one of the cases of pulmonary tuberculosis, and in the case of urinary and peritoneal tuberculosis, severe brown atrophy of the heart was present. In the other tuberculosis case, complicated by bilateral empyemata, and in all of the remaining cases (with the exception of those of streptococcal septicæmia, streptococcal meningitis and acute " influenzal pneumonia ") more or less myocardial-softening was present, and was adjudicated the immediate cause of death. This was not especially so in the case of diphtheria, as one might imagine. The liver and kidney may also reflect a state of intoxication, but this is, as a rule, less striking as more time is required for its development. In children with their high fat content in the liver, changes are liable to be overrated, just as they are in the myocardium where fat is also normally present.

Septicæmia was present in the case of puerperal infection. In this case there were just over 2 oz. of retained placenta, heavily infected within the uterus, septic thrombophlebitis of the right ovarian plexus and vegetations upon both the mitral and aortic cusps. These showed large numbers of streptococci microscopically. The girl had given birth to an illegitimate child seven days before death took place, and had concealed the fact with the assistance of her mother. There had been no expert attendance.

Blood culture was not performed in the case of " influenzal pneumonia," as death was accompanied by evidence of asphyxia. There were widespread broncholitis and numerous pulmonary hæmorrhages. The condition was identical with that described during the severe epidemics of 1918 and 1926. I have records of two other cases dying suddenly after 24 hours' and five days' illness respectively, and with very similar findings. Death is often very sudden and unexpected in pulmonary " influenza."

Sudden death in conditions of septicæmia such as these quoted above is probably due to a combination of severe general intoxication and actual disease of the myocardium.

The case of anthrax deserves special mention. It was probably five days old when death took place, and occurred in a leather dresser who was at his work until his death one morning after breakfast. The widow remarked to the doctor who was called that the only thing she knew was that he had a pimple on his neck, and it had " got in the way of the edge of his collar." When the practitioner examined this, he quite correctly suspected that the case was one of anthrax. The blood stream gave direct positive findings on smearing at post-mortem. There had been no complaint of illness.

DISEASE OF THE HEART AND BLOOD VESSELS

As already mentioned, one case only in the whole series was of coronary artery disease, with pathological change in the myocardium. It occurred at the early age of 29.

Of eight cases falling into this group, five were deaths attributable to the direct or indirect effects of congenital anomalies of development, either of the heart, or of the aorta or cerebral arteries. The anomalies, causes of death and ages were :—

		Age
Co-arctation of the aorta	Dissecting rupture	35
Multiple cerebral aneurysms, two	Rupture	26, 27
Aortic stenosis	Heart failure	16
Hypoplasia of the aorta	Rupture	20

Most of these need no description, for they are among the more common causes of sudden death in early years when clinical symptoms have demanded attention. The case of co-arctation of the aorta occurred in a mobile policeman patrolling in a car. He had passed the examining police surgeon as fit four years earlier, although even then the enormous dilatation of the collateral channels at the left root of the neck, studded with many aneurysms, and making connection with the aorta again viâ one of the intercostal arteries, must have been present. It may well have been that the evidence of his aortic trunk stenosis consisted only of delayed pulses to the left arm and leg and lowered blood pressures on this side, and, of course, unless both pulses or both pressures had been recorded at the same moment nothing unusual might have been noticed.

The end was sudden, for he was conveying minute-by-minute messages received by wireless earphone whilst seated in the back of the patrol car, and made no complaint. He failed to answer a question put to him immediately after finishing a report, and when the driver looked round he was dead, slumped in the corner of the rear seat. A short "dissection" in the wall of a ruptured "aortic sinus" and a large hæmopericardium were found at post-mortem.

The fourth case was interesting. The boy of 16 fell off his bicycle, and was dead when picked up. No person was near him as he fell, and the collapse, in fact, proved to be due to left-sided myocardial failure; the whole of the aditus to the aortic valve—not merely the valve ring itself—and the cusps showed a finely wrinkled tube-like stenosis, no more than 6-8 mm. in diameter. The total length involved was nearly a centimetre and a half. The valves were three in number, but thickened, short and rigid. There were no other anomalies. The mitral valve was healthy, and there were no signs of rheumatic carditis. The heart was large, weighing 14 ounces, as compared with a normal weight at that age of 8-9 ounces, and bearing a markedly hypertrophied left ventricular wall.

In the fifth case there occurred one of those spontaneous ruptures described so fully by Shennan in his Medical Research Council Special Report in 1933. A young girl of 20 was carrying a coal scuttle, full, when she tripped over a mat and fell heavily with the right shoulder and neck extended on the trunk. For 17 days she had occasional retro-sternal pains, and one or two attacks of giddiness, an unusual experience for her. On the 18th day she was out shopping when she had a "stinging pain in the chest," complained that "it hurt to breathe," and then collapsed, dying before help could be summoned. At post-mortem I found a long dissecting aneurysm coming from a transverse tear at the beginning of the arch of the aorta and breaking into the pericardium, with a fatal hæmo-pericardium. The aorta showed no disease, but was extremely thin in all parts. There was no microscopical evidence of disease in parts taken close to the site of rupture. Dissection must have been going on from the time of rupture, by hyper-extension at the root of the neck, and finally broken into the pericardium at the eventual collapse. Most dissecting aneurysms taking origin in the aorta arise either in atheromatous ulcers, whose edges become "lifted" by the pressure of blood or at sites of spontaneous rupture, usually in the ascending aorta and in company with co-arctation or hyperpiesia. The pressure behind a site of co-arctation may be enormous. Spontaneous rupture does occasionally happen, however, in aortæ which are merely thin and show no other disease. Shennan describes hyaline degeneration of the media in many of these, but I was unable to satisfy myself that it was so in this case of a girl of 20.

The three remaining cases in this group consist of the coronary thrombosis already mentioned, a case of massive concealed ante-partum hæmorrhage, and a pulmonary embolism in a young mother who was leaving the nursing home where she had, ten days previously, given birth to her first child.

NERVOUS SHOCK

One case has already been described in a girl of 27, two months pregnant. There occur two other cases of more simple shock in the series. One was that of a young man of 32 who, shortly after taking his breakfast, set out for work. He collapsed in the street, and died before any assistance could be given. At post-mortem a very recent perforation of an acute duodenal ulcer was found; although the peritoneal sac was full of bile-stained duodenal contents, there was no peritonitis. He had died of shock. In this case the right heart was widely dilated, the left firmly contracted. There was no other disease. The other was the case of a girl of 26 who slipped on the steps of a Strand restaurant, falling heavily. She was two and half months pregnant, and almost immediately experienced pelvic pain and began to bleed per vaginam. Abortion took place a little over an hour later. There was little hæmor-

rhage but much pain, and she became pale and shocked. Death took place quite suddenly three or four minutes after parturition. There was no evidence of interference, of trauma, excessive loss of blood, or disease likely to have caused her death *per se*. The problem of sudden death from injury or shock to the cervix is a well-known one. Death sometimes takes place, as in one of Spilsbury's cases, after a cold douche, and several have been reported following criminal interference without laceration or other complication. I have already discussed the nature of these deaths.

A third case was of interest. It was a death in an attack of major epilepsy which occurred in a youth of 23 who was mending a tiled roof. He was seen having " one of his attacks " on the roof, and looked as if he might fall. He was rescued, still in convulsions, but became still as the ground was reached, and, although a doctor was called immediately, he was only able to state that death had taken place shortly before. Post-mortem revealed a telangiectasis of the cerebral basal nuclei and of the cerebellar hemispheres, without hæmorrhage or other lesion. The body was cyanosed, and there was evidence of asphyxia. The air passages contained a little frothy mucus only, and the right heart was grossly dilated. Death in an epileptic attack is probably very uncommon. The pathological change in this brain was not of the type described by Lindau, for there were no true angiomata.

ENDOCRINE DISORDERS

I have purposely avoided discussing " status lymphaticus " in this connection. Four cases of acute endocrine disorder occurred in the series of 42 post-mortems. One, in a man aged 28, was a tragic case. He visited a coloured doctor in South London one Saturday morning complaining of insatiable thirst of five days' duration, and was given a tonic with instruction to rest until the doctor could see him, after the week-end. No examination was made. He became disturbed mentally early on the Monday morning and, before daylight, sank quickly into coma. His wife hurriedly called the doctor, who arrived to find his patient dead. At post-mortem, I found a small pancreas ($1\frac{1}{4}$ oz.), a rather fatty liver, and pale swollen kidneys with evidence of fatty necrobiosis in the " boundary " zones. A specimen of urine contained large quantities of sugar, together with acetone bodies sufficient to give a strong positive Rothera test. It was, of course, of no value to perform a blood-sugar estimation, for several hours had elapsed since death. Reasonable care in clinical examination would have prevented this fatality. He left a young widow and a child of four months entirely without means. In cases devoid of pathological evidence of disease, examination of the urine may be of the greatest importance. The pancreas may be quite normal in size and appearance.

The other three cases of endocrine disease concern the adrenal organs, and were cases of " acute adrenal insufficiency." One, in a child of four, was due to hæmorrhage into the adrenal medulla, and the other two were cases of acute tuberculosis of the entire organ, including the essential cortex. One of the latter was in a woman of 34, who started to vomit after a supper of kippers shared by three, continued to do so at intervals during the night, and died early in the morning. The other occurred in a boy of 22 who fell dead on a football field one Saturday afternoon whilst chasing the ball. No one was near him at the time, and he had had no hard knocks during the game, which had, by then, been in progress for some 20 minutes. He made no movement after falling, and was thought to have tripped and hit his head. There was no evidence of injury, but, as already noted, the adrenal medulla and cortex on each side was replaced by soft, recently formed tuberculous granulation tissue, caseating freely. There was no other evidence of Addison's disease in either case. Some weeks elapse before pigmentation and wasting become apparent.

Now the case of sudden death from hæmorrhage into the adrenal medulla is an example of a fairly common fatality. In addition to this one in a child of four who had a streptococcal infection of the throat, I have notes of three others, two with histories of burns and one complicating diphtheria. They nearly always occur in young children. All of these were under five years of age, but only the one I quote among these cases of sudden death was not under observation for clinical illness.

The functions of the adrenal cortex probably depend upon the integrity of the medulla, and sudden or fairly rapid destruction of either the cortex or medulla, or both, as by hæmorrhage or " acute " tuberculous inflammation, is responsible for the state of " acute adrenal insufficiency " which proves fatal. These are not cases of fully developed Addison's disease. What is the nature of the " insufficiency " ? During the course of adrenalectomy studies in dogs, Loeb (1933) was able to show that there was a close resemblance between the shock-like circulatory crises of Addison's disease and the crises of conditions like high intestinal obstruction and diabetic acidosis, where there is a loss of inorganic base. There is a marked decrease in the sodium content of the

blood. He showed that adrenalectomy in the dog is followed by excessive sodium loss into the urine, and that cases of Addison's disease and adrenalectomised dogs can have their circulatory crises delayed by the administration of sodium. It is, perhaps, this factor, together with the sudden stimulus to the sympathetic system caused by destruction of the medulla which causes immediate or shortly delayed death in such cases as the three described in this paper. Whether " exhaustion of the adrenal " is a factor in the causation of death in cases of nervous inhibition such as were described under the heading of " nervous shock " cannot at the present time be either stated or denied. There is no evidence in either direction. You will note, however, the record of adrenal hypoplasia in the infants who died without disease.

It will be clear that the cause of sudden death from natural causes in youth, without clinical history of illness, is a subject which deserves very special consideration. It presents problems which are seldom encountered in the more common condition of sudden death in later years.

Reviews

Guy's Hospital Reports. July, 1935. Vol. LXXXV (Vol. XV, Fourth Series), No. 3.

THIS number of the Reports is opened by an absorbing and sympathetic appreciation of the late Sir Maurice Craig by Dr. H. C. Cameron.

Dr. Paul White, who gave a lecture on his important work on chronic constrictive pericarditis in the Hospital recently, here acknowledges his debt to Chevers and Wilks, who were among the first to recognise the condition in papers in the Reports of 1842 and 1871 respectively, here reprinted; a biographical note on Chevers is added by Malcolm Campbell.

Dr. A. J. Gibbs contributes his D.M. thesis on the Ætiology and Morbid Anatomy of Aortic Stenosis; twenty-seven cases are carefully analysed and the importance of arteriosclerosis in the ætiology demonstrated.

Then follow two papers from the Psychological Department. The first is the result of work on the Asthma-Eczema-Prurigo Syndrome by a team headed by Dr. Rogerson, in which the good results obtained by psychotherapy on twenty-five cases bear out the importance of the psychological factor in the syndrome. In the second, Dr. Strauss looks for a primary mental ætiology of asthma, and hopes to solve his problem in methodology by watching the reactions of future asthmatics to their toys in a play clinic.

Dr. Hurst's work on Ulcerative Colitis has clarified the conception of this disease, rationalised the treatment, and lightened the prognosis in what was thought at one time to be a hopeless condition. This summary and review of his own cases amplifies Hern's analysis of the Hospital cases in the 1931 Reports. The evidence given in support of a dysentery or allied bacillus as the causative organism is convincing, and the claims of Bargen for his diplococcus are definitely dismissed; the place of serum in treatment is stressed and differential diagnosis clarified; complications are detailed and compared with the figures from the Mayo Clinic and the relative prognosis between hospital and private patients compared. Finally, the place of surgery in the treatment of the condition is indicated.

Mr. Mollison describes the indications for operative treatment in Vertigo, and publishes encouraging results of thirty cases.

Finally, Dr. McGregor gives a detailed account of a family with Fragilitas Ossium, and Dr. Harding, as the result of an investigation on the effect of intravenous glucose on the rabbit, shows the advisability of preventing dehydration when large doses of glucose are given therapeutically in man.

The Treatment of Acute Poisoning. By H. L. MARRIOTT, Esq., M.D., M.R.C.P. Published by John Murray. Pp. 45. *Price* 5*s*.

EXPERIENCE in acute poisoning, when it comes to the young doctor at all, is generally to the young pathologist. On that aspect of the question which more closely concerns the practitioner, Dr. Marriott has very considerable experience. For eight years he has been responsible for the treatment of all these cases admitted into the Middlesex Hospital, which serves an area with a high suicide incidence.

The manner in which this branch of medicine is most generally taught arouses, with some justification, his dissatisfaction. The importance laid on antidote and pharmacy is done too often at the expense of those general measures whose vigorous application alone can save the life.

The contents of this very practical book, which are rendered in a manner which makes their assimilation and retention easy, are divided into two parts—" What to do " and " How to do it." In the first is described the urgency of eliminating the residual toxin, whether it has been absorbed by alimentary or respiratory systems. It is here

that he emphasises that in these cases death is due to one of the following conditions; asphyxia, coma, collapse and shock, or delirium, and that the proper treatment is to combat these general effects rather than seek for a specific antidote for the poison.

He deals severally with the treatment of these states. It seems that his views, based on experience and experiments, should be more widely accepted. In states of coma the dosage of stimulant which he advocates—together with experimental evidence to show that tolerance to these stimulants is greatly increased in coma—is 5–15 c.c. of coramine or $\frac{1}{8}$ grn. of strychnine, four-hourly. The usual method of passing a stomach tube in the supine position is condemned with good reason, and it is pointed out that passing it with the patient prone is easier and lessens the risk of inhalation pneumonia. A further point is made regarding the amount of fluid necessary for an adequate lavage of the stomach. If less than two gallons is used a lethal dose of the poison may still remain.

This book, which can be read in less than an hour, is full of useful material and for the explicit information it contains on urgent treatment is recommended to all admitting officers and others whose practice may bring them in contact with cases of poisoning.

Correspondence

The College

To the Editor of the GAZETTE

SIR,—I am very glad "for our credit's sake," as Kipling remarked, to see that attention is being given to the College at last. If the evidence of your correspondence columns is any criterion, there is very strong feeling on the subject.

It speaks volumes for the loyalty and *esprit de corps* of present Guy's men that no complaints appear to have been made by parents about the accommodation which the authorities are content to provide for their sons in return for a subscription equal to that of certain of the well-known smaller London clubs. The news of the campaign is spreading, however, and some of us will be surprised if there is not a falling off of entries in the near future greater than might be accounted for by the commencing boom in trade.

Yours, etc.,

"1900."

To the Editor of the GAZETTE

SIR,—The suggestion of "Carfax" to build a new College as a memorial to His Late Majesty King George V is an inspiration. Failure to obtain a hearty response at this time, when His Late Majesty's services to Guy's are fresh in the minds of us all is unthinkable, especially when considered in conjunction with the urgent need of present Guy's men.

It would be a blot upon the escutcheon of which we are all so proud, to allow the moment to pass without at least some statement of an authoritative kind on the policy to be pursued.

Yours, etc.,

"R.A.M.C."

"The Spit" and the Good Old Student Days

To the Editor of the GAZETTE

SIR,—After reading your remarks about the present conditions in the Restaurant and Smoking Room at Guy's, it occurred to me that it might interest some of your readers if I told you how things struck one of your predecessors at the end of last century, when Goodhart, Hale-White, Lane, Lucas and Jacobson were some of the stars in the Guy's firmament.

The College was then much as it is now, and I can remember the twinge of dismay with which I saw the underground smoking room and its refreshments. In those days, too, there was often no room in the restaurant, and many of us never sat down at lunch-time, but with clinical lectures, post-mortems, and out-patients there was little time for sitting, and a sandwich and glass of milk were one's usual lunch; but there was much talk, mostly shop. I do not advocate this system; in my case it made me painfully conscious of the existence of a stomach which had never made itself obvious before. I used to wonder if I had cancer of the stomach from some of the text-book symptoms, and even now I wonder if I had a gastric ulcer, for I had excruciating pain some time after meals and for weeks was afraid to eat anything solid.

My first morning at Guy's I shall always remember; it was a very cold and foggy morning, and fogs were fogs in those days. A friend and myself came up from one of the older universities; we had to start on New Year's Day, and as we had some particular engagement that day wrote and asked the authorities if the next day would not do, but were told that we must be there punctually at 9 on January 1st. We went up to town and

turned up accordingly, could get no information from the Porter, so wandered up and down the Colonnade. It was very dark and cold in there and not a soul was about, but at last a man in a dressing-gown and towels turned up. He was a dresser (the Surgery, of course, was not then on its present site), and we confided our troubles to him, and he told us they had had a late night on New Year's Eve and advised us to go home.

However, the next day we started work, and the combined efforts of sisters, nurses and dressers soon disabused us of any ideas we might have had as to the importance of Surgical Ward clerks in the scheme of things. It proved a good appointment though, and one acquired some practical knowledge from the dressers. I remember how one of them sent out a patient from the Surgery into the slush outside with a long splint strapped on his foot like a snowshoe, and have often wondered why he adopted this unusual procedure. Take-in week, with its suppers in the "Room," was quite eventful, and gradually we got to know that even dressers were not infallible, and to realise that each appointment made one a little less unfit for responsibility, and as one advanced a little things became more and more interesting, and we enjoyed life thoroughly.

Then there were the debates and concerts, which, I believe, have lapsed, in the smoking room, the latter very informal, but there was a lot of theatrical talent, and those were the days when Chevalier's songs were new. There were recitations and sometimes plays, one of them with a big athlete as Desdemona and a small man (later a well-known play-writer) as Othello, and the President of the Residents presiding over a crowded and noisy meeting.

Later on as Resident there were many incidents one recalls: there was old Nurse Keogh—known to generations as "Auntie"—and I remember how, in the Front Surgery one tropical night in August, two policemen carried in a man in a hand ambulance. They were streaming with perspiration after their voyage across London Bridge, and told me they had found the patient by the Bank absolutely unconscious, so, as it was impossible to rouse him, they had brought him to Guy's. Meanwhile Nurse Keogh strolled up to the stretcher, let down the head-piece, and hit the inmate a ringing blow across the cheek. He got up instantly, and one P.C. said to the other, "Well, I'm damned!" Mrs. Keogh had a wonderful memory for faces.

I remember, too, how a man whom I declined to take in became abusive and said he had been in Bart.'s and that they told him he had a wonderful rare disease, and he produced a scrap of paper on which Bart.'s had written "Malingerer"!

Then again I had to go round Clinical late one night and went into the kitchen, where milk was always ready to make our bread and milk. There was a huge clothes-horse round the fire, and as I went by through a peep-hole between the clothes I happened to see one of the Clinicals kissing the staff nurse. They were innocently boiling milk when I got round the screen. I was wearing pumps, but it was lucky it was not the sister. And no doubt the same thing happens now.

Then there is the celebrated incident of the delirious pneumonia who escaped from the clutching hands of the night nurse minus his shirt, climbed the gates, and went and sat on the steps of the police station with nothing on except a poultice, and so was restored to us by the police.

I am afraid I am becoming garrulous, and these reminiscences must end. Possibly they may incite some old Guy's man to produce some better ones, and in any case they will serve as padding, for I have been moved by your appeal for material.

Finally I would say, Mr. Editor, that the *Gazette* seems to me quite interesting of late; a little controversy may be an excellent thing, and, after reading some of the strictures, I would say, as the poet said of the organ-grinder:—

"I have heard mankind abuse thee,
And perhaps it may seem strange,
But I thought that I would choose thee
For encomiums as a change."

Yours, etc.,

A H.P.

Our College—*Dulce Domum*

To the Editor of the GAZETTE

REALLY, Mr. Editor, "*in loco domi*" (*G.H.G.*, p. 73)! Why allow your correspondents to Americanise the beautiful English language, though it be in the best of causes?

Yours, etc.,

G. W. NICHOLSON.

Guy's Hospital, S.E.1.

(We apologise to Professor Nicholson for having overlooked our correspondent's peccadillo, though his cause—that of *res angustæ domus*—indeed was worthy.—*Ed.*)

Wills Library

To the Editor of the GAZETTE

SIR,—As everyone is aware, the Wills' Library is open from 9.30 to 5.30 The Librarian's Office is closed from 1 to 2. Why? I suppose "lunch" is the reason.

I suggest, now that the Librarian has an assistant, that the office should remain open all

day and thereby enable those students wishing to work during the "lunch hour" to do so.

If books were obtainable, I feel it might to some extent relieve the congestion of the College Reading Room, and at the same time lessen the annoyance caused to those who are trying to work, but who are largely prevented from doing so by the continual chatter of those waiting to gain admittance to the office at 2 o'clock.

Yours, etc.,
F. J. R. STONEHAM.

Guy's Hospital, S.E.1.

Mr. Law and Mr. Krusin

To the Editor of the GAZETTE

SIR,—I feel that it is indicated that I make a response to the reply, editorial note and leader that my first letter has evoked.

In the first place it is unmistakably borne in upon me from parts of Mr. Krusin's letter and from the opening sentence in your editorial note that the manner in which I expressed myself has given offence. This has distressed me in no small measure, and I at once offer my sincere apologies to Mr. Krusin and any other whom I may have offended. However strongly I may have felt on the subject, I assure you that my last intention was to show any discourtesy, and I ask Mr. Krusin in particular to accept my unreserved apology for any offence I have caused.

On re-reading my letter I see clearly that it contains unfortunate phrases—but in extenuation I would say that when, for instance, I used the phrase "unfit for publication in the *Gazette*," I fully intended to comment more upon the site of publication than upon the article, which elsewhere would probably prove stimulating, instead of (as I thought) misleading. It is a combination of brevity and an apparently misguided crusader spirit which has put my letter in so unfavourable a light.

May I answer your comments seriatim?

1. Careless wording of my criticism is here to be blamed. I meant to criticise exactly what Mr. Krusin said—that soft cataract was a common eye manifestation of congenital syphilis. My implied criticism—that such is not the case—still stands.

2. This "confusion" is due to an error in transcription, probably a secretarial one at my end. When Mr. Krusin writes "focal," he does not mean "local"; when I write "focal," I am misread as "local" (and those who know my writing will perhaps sympathise with the reader). Again I certainly meant literally to quote Mr. Krusin, and again my criticism still stands.

As to your (3) and (4) and Mr. Krusin's comments on these matters, I cannot see that the fact that the statements are "merely quoted" has much to do with the case. Mr. Krusin must surely have believed in the accuracy of the statements he quotes; yet there is in your comments a hint that he dissociates himself from them. I must plead guilty to "pitting myself" against these *obiter dicta*. Incidentally, with regard to the first, I did not notice in Villard's article a statement of the order in which diseased teeth give rise to eye symptoms; and, with regard to the second, in a comparatively wide experience I have never seen or heard of a case in which homonymous hæmianopia has been relieved by the removal of a devitalised tooth. Like yourself, I also have inquired of authorities, in the persons of senior colleagues, but with negative results. I do not say that it has never occurred, but when the reason for my letter (which reason I fear you consider presumptuous) is remembered, my object in commenting upon the statement will appear, perhaps, justified.

As to the care with which I read the original article—this seems to be in some doubt both in your own mind and in that of your correspondent. I hope I may have done something to prove that I did give the article quite a careful reading—every bit as careful, I should say, as he who corrected the proofs of the article, which was left with four errors in the list of seven references.*

Such, Sir, are my replies to your comments in detail. I have read with interest your leading article on the subject and matters arising from it, and feel a little consoled to notice that I have given opportunity for an expression of editorial opinion upon an important matter. I notice your taunt at my attitude in "acting as a protector to the young mind," but must confess that I still unrepentently feel that such a function is at least an honourable one to serve, if—as appears to be the case—misguided and unappreciated.

I thank you, Sir, for your kindly reference to me in your last paragraph, and hope that I may continue to be of use to you. I must, however, express my keen disappointment at the perpetration of so feeble a joke at the expense of my name in the heading to my letter. Quite apart from the fact that I had no intention of doing what the heading suggests, but was merely trying to make a constructive suggestion, a pun on a surname is really rather a poor joke—and gibe—for your journal. *May I hope that it was unintentional?*

Finally, in case I have again not sensed accurately the atmosphere of the columns of the *Gazette*, to which I am a comparative stranger, I have submitted this letter to the censorship of my house officer, who assures me that its manner

(* We note that in reading the proofs we erred in misplacing two commas.—*Ed.*)

is innocuous. He kindly did not add " whatever its matter " ; I add that on his behalf!

I apologise for the length of my communication, but to judge by the pathos in " Passim " perhaps such an apology is unnecessary.

Yours, etc.,

FRANK W. LAW.

36, Devonshire Place, W.1.

(We are sorry if we appear to have failed to appreciate the " Crusader " spirit of Mr. Law's first letter. We thank him for his second one, though we cannot help feeling a little surprised that the atmosphere of our correspondence columns is so difficult to sense as to necessitate the introduction of a referee, a procedure which Mr. Law recommended should be applied to the publication of articles in the *Gazette*.—*Ed.*)

Duties of Coroners

To the Editor of the GAZETTE

SIR,—" Passim " allows itself a tilt at Coroners in the current number of the *Gazette*, expressing a qualified approval of the findings of the Departmental Committee " appointed to sit on Coroners."

This punning misquotation and the expressed hope that the findings of the Committee may effect a "plea against the practice of some Coroners of using their official position to censure and criticise a hospital staff on professional matters " are hardly just to these responsible officials.

It is the duty of the Coroner to inquire into the affairs concerning the death of persons, not merely to ascertain the cause of death, and the Committee wisely do not intend to interfere with this duty, for it is the only protection for a law-abiding public. A post-mortem or analysis may settle the cause of death, but its circumstances may have to be known in order to make clear the actual manner of death.

Occasionally, during the course of such inquiries, it becomes evident that a death has occurred because of some deficiency or ambiguity in the administration or procedure at a hospital. For instance, a child of $2\frac{1}{2}$ years died suddenly in another hospital some time ago as the result of ambiguity in the wording of directions on a minor operations' appointment card. Now this was a matter of direct interest to the public, for it concerned their very safety.

It may be felt that, under such circumstances, the Coroner is performing a public service in making known without delay the existence of such a fault, for fear of a recurrence of such an " unfortunate incident " ; that word in public is worth two in the committee room or in " communications of the 15th," for a quick redress of such dangerous circumstances.

It is seldom that comment is made unless it is urgently to the interest of the public, and such comment, therefore, usually concerns itself with procedure at institutions which patently requires alteration. It is on rare occasions indeed that " hospital staff " are criticised " on professional matters."

Anyone with the shortest experience of forensic practice will agree that for every occasion of censure there occur many indeed of courteous clemency for the shortcomings of the busy practitioner and the house officer to whom " the exciting associations of the clanging of the bell at the Front Surgery " are sometimes more than cold scientific findings and an accurately worded report.

No one will deny that the privileges of the Coroner require revision, but we must afford justice to the Coroner as well as to the public.

Yours, etc.,

W.1. " PATHOLOGOS."

Psychotherapy

To the Editor of the GAZETTE

SIR,—All practitioners who have had time to read will have been interested in the series of notes on Psychotherapy by Dr. Neustatter, Dr. Hurst and Dr. Gillespie. The general practitioner is continually desiring to learn the better understanding of his patients, the easier recognition of the earliest signs of disease and the speediest methods of cure. He is continually receiving from consultant specialists in every branch this urge to recognise and deal with the early evidences of trouble and to appreciate his tremendous responsibilities.

As a general practitioner of over 30 years' experience, at the risk of being judged as similar to the poor mathematician jumping from the binomial theorem into the blue of relativity and quantum, I yield to the provocation to add some remarks of appreciation and criticism. I have been in practice long enough to watch both the children and grandchildren of those whom I have had the pleasure or sometimes discomfort of doctoring, and have been impressed by surprise, in both directions, caused by the history and progress of the successive generations of those under observation ; this is undoubtedly due to ignorance, yet I am inclined to state that the vast majority of our profession as well as other people are ignorant in this way.

The outlook of the practitioner, as well as of the patient, depends upon his life-history, including his inheritance and the influences of environment upon that inheritance. We may imagine a kaleidoscope of the genes of inheritance in ever-changing relationship with and mutual modification by a kaleidoscope of the factors of environment ; the

primary trends with their reactions or responses to environment yield a mighty variety in temperaments, dispositions, characters and personalities.

Pædiatricians and psychiatrists have had difficulties in understanding one another by reason of usage of words; for the guidance of us general practitioners it would be very nice if the experts would agree upon some standard terminology and give definite meanings of the words "temperament," "disposition," "character" or "personality." The meanings of these terms as used in Dr. Gillespie's letter are not quite clear.

The reference to the question of the differences of the interpretation of results is of great importance, especially with regard to quality, even as important as quantity; the temporary or permanent or general heightened power of and capacity for adjustment to life's problems, can only be assessed after a long period of observation.

Man is a social animal, and we have to recognise those abnormalities which are going to be a definite nuisance to the individual as well as to the species. People have been graded into various classes from those who only need the surface scratching to those who need deep analysis. It is well recognised that you do not know what you may get under the surface until you have scratched it, and that you may get many surprises; some cases may be persuaded easily to adjustability to average normal life; others will be parasites upon you for years and years—these need encouragement and persuasion to seek advice from the expert who has the gift of establishing that *rapport* which will lead their associations back to their infancy when repressions took place.

One may also picture the life of each one of us who lives long enough to be divided into three phases: first, that of impressionability; second, that of judgment or of balance of past and new impressions, and thirdly, a phase of prejudice when there is little chance for reception of new impressions because the past are blocking the way.

In the articles contributed by the various writers, there appears to be a lack of stress upon the importance of the earliest impressions of life, slight reference to the recognition of the psychoneurotic by inheritance plus influence of the early environment of psycho-neurotic parents or to those who need the treatment but do not seek advice for it; this last applies to many other diseases of the human body, the sufferers coming only when troubles are no longer endurable.

It is probably correct to state that the beginning of most nervous troubles is in early life; in other words, the most important period of life, the time of many conflicts, is between 1 and 3, when the human mother is tending to be a little tired of her bondage to her tender, helpless, dependent offspring, when the offspring is beginning to struggle for its own independent existence.

The cases of maladjustment presenting great difficulty are those who are "set" in their life, namely, who have reached the age of 50 and over; these are the most troublesome to get to remove the mask in order to see themselves and realities and the way of adjustment to life.

It is most important not to put into tight compartments any branch of Medicine; you cannot separate the mind from the body in their actions upon one another and upon the whole; the reaction of the body physiological to the invasion of microbes is not only parallel to that of the body mental to the disturbances by environment, but both react upon each other.

Reference has barely been made to this combination of the genuine organic ailments with the psycho-neurotic disposition; this, of course, was seen daily by those who served in the War, who saw many people suffering from almost identical wounds, diseases and trauma of environment having vastly different reactions to them. In practice, if we could modify the temperament, disposition, character, personality of people, their chances of recovery would be enhanced tremendously. It is not easy to change the leopard's spots, but I have no doubt that the contributors of the series of articles will later on give us general practitioners hints as to how to help in this. I have for the last 30 years said that 50 per cent. of all ailments are due to the outlook of the mind and 50 per cent. of the remaining organic ailments in 50 per cent. of their elements are subject to the trends through disposition, etc.

What is meant by this happiness or adjustment to environment? Is it not true that most of the work of the world is done by obsessionals, that a great number of Victoria Crosses have been won by hysterics, that the normal is difficult or impossible to define, but rather a dull person, and that the great things are done by the abnormal? We, as practitioners, seeing the errors of people's ways, cannot go and butt in and persuade; if we did, we might possibly find later on in life that the very things we considered wrong have been the means of promotion of skill, efficiency and success. All of us have heard of men who have achieved distinction condemning their early struggles and hardships, which very handicaps were responsible for their later progress and distinction.

One of the aims of education is to develop an intense interest in the things which are studied; the skill of the teacher is evidenced by his power of development in the pupil of those particular gifts which carry the individual through life—call it "keenness" or what you will, if the person has an intense interest in anything, then that is a

way of giving adjustment and happiness to them in their life.

It would be an interesting thing to obtain answers to the question : " At what do we aim as medical practitioners ? " We are consulted for a trouble, oftentimes we notice a trouble without being consulted for it, and find that this is being superintended by some other orthodox or unorthodox practitioner. Is it that we are aiming to restore people to efficiency in the carrying out of the duties of their daily life, or to the restoration of the powers of adjustment to life generally ? Language is becoming steadily more and more a babel and terminology more and more difficult, particularly in the subject of psychology. I referred to a few terms at the beginning of this letter ; it would be well, I think, if we had a definite definition of what we mean by Health and Happiness.

As normal man is a social animal, it is essential to him to be able to live his life with realisation of his own self and harmonious adjustment to his neighbours and to the rest of the world.

There are definite evidences that in the instruction or re-education of people of all ages there are four factors which, in degrees varying in relative importance in different individuals, have always to be seriously considered. They are :—

1. The purely personal. Interest in work and other interests such as hobbies, play and the right use of leisure ; in other words, variety of interests.

2. Interest in the love life commencing with indefinite interest in the opposite sex, more definite selection of mate, ultimate absorption into children and home.

3. Interest in others and ability to mix with and exchange thoughts with them and to take part in social life.

4. Interest in and respect for true and worthy authority and for the mysterious unknown—the Pre-eminent, Imminent directing force in all life.

This in its total means self-realisation and the adjustment of self to ever-changing environment. I should like to describe this as happiness, and the aim of the medical practitioner, therefore, as the restoration of each individual to happiness.

It is up to us to reveal to people that all the associations, all the adventures and apparent misfortunes of life are experiences and, being part of the inevitable chain of changes and development, may or must be turned to advantage.

Reactions to experiences should be taught early as part of the developing responsibilities of each individual and means of measurement of his intelligence.

What is normality ? What is cure ? What is health ? What is happiness ? The general practitioner has to have in his armament not only a knowledge of biochemistry, physiological functionings, endocrine disturbances, metabolic disorders, the reactions of the mind to environment, how to deal with trauma in all senses, but he has also to have a knowledge of life in its widest sense—of economics, politics, education, religion, law, in fact, of everything that there is to make up life, he has to be the superman of the medical profession, to work the hardest and to accept the lowest pay of anyone in the world of his scientific attainments for the services he tries to render.

One day I hope to write another letter : " Call It a Day," a day in the life of a general Practitioner.

Yours, etc.,
A G.P.

Dental Clinical Meeting

THE following is the Provisional Programme for the Clinical Meeting to be held in the Dental Department, Guy's Hospital, on Saturday, March 7th, 1936 :—

Morning Session—10.30 a.m. to 12.30 p.m.

Afternoon Session—2.30 p.m. to 4.30 p.m.

Clinical cases will be shown by members of the Dental Staff.

Orthodontic cases will be shown by Mr. F. Bocquet Bull, Mr. R. E. Rix and the Registrars in the Children's Department.

Prosthetic cases will be shown by Professor H. B. Fenn and the Demonstrators in the Prosthetic Department.

The following demonstrations will be given :—

Histological Specimens, Mr. G. B. Pritchard and Mr. H. L. Messenger.

Extractions under General Anæsthesia, Mr. W. Kelsey Fry.

The Administration of Anæsthetics for Dental Operations, Mr. A. D. Marston.

Bacteriology, Mr. A. Bulleid.

Museum Specimens, Mr. M. A. Rushton.

X-Rays showing Representative Pathological Conditions, Mr. H. M. Worth.

(Mr. Worth invites old Guy's men to bring with them their own radiographic problems for discussion.)

Speech Training, Mr. H. St. John Rumsey.

The Uses of Pink Porcelain, Mr. W. E. Herbert.

The Facilitation of Extractions using Instruments designed for Hand Pressure, Mr. H. H. Kenshole.

The Use of the Automatic Chisel, Mr. E. A. Lloyd.

Gold Inlays, Mr. A. R. F. Thompson.
Special Trays, Mr. G. H. Ellingham.
Swaged Base Technique for Crowns, Mr. C. I. Hagger.
Regional Anæsthesia in the Mandible, Mr. J. W. Hallam and Mr. D. J. Wandless.
Root Canal Treatment, Mr. C. S. Henderson.
A New Technique for the Removal of Impacted Teeth (Table Demonstration), Mr. J. A. C. Hunter.
Clasp Designing, Mr. J. W. Mansie.
Electro-Plating of Impressions and Models, Mr. G. G. Tregarthen.
The Swaging of Wire Clasps for Dentures, Mr. R. J. Wheatley.

Sport

Rugby

Second Round Inter-Hospitals Cup
Guy's v. St. George's

AFTER the weather experienced during the two weeks previously, it was very pleasant to find the conditions ideal for the Second Round of the Hospitals Cup, when Guy's met St. George's at Richmond on Thursday, February 20th.

With the sun shining brightly and very little wind, it was not surprising to find a large attendance to see Guy's reach the Semi-Final by defeating St. George's by 2 placed goals, 2 penalty goals and 4 tries (28 points) to nil.

Although Guy's won by such a wide margin they were not so convincing as was expected, and this was due to a large extent to the spoiling tactics adopted by their opponents, and secondly to the disjointed display given by our back division.

Both sides had notable absentees: D. H. Swayne, the English international forward, was unable to turn out for St. George's, and R. C. S. Dick, the Guy's Secretary and Captain of Scotland, rested in view of the International against Ireland.

With the exception of the halves, the Guy's back division were not very impressive, and if they mean to go further in the competition, then there must be closer co-ordination, and greater thrust if they are to profit by the opportunities presented by the forwards, who worked together with admirable judgment.

The forwards played their part exceedingly well, and, but for their understanding and close backing up, Guy's might have had a different story to tell.

Stanyon-Jaques at the base of the scrum was closely watched by Weston, and the St. George's wing forwards, and was allowed little scope; however, he was very alert and gave Allen many opportunities to set the threes going.

In the first half, Allen was rather prone to pass the ball before drawing his man, with the result that Steytler (who was closely marked) was somewhat hampered in his movements when endeavouring to straighten the line. Stewart did one or two good things during the game, but he was uncertain and inclined to run across the field. Wright seldom had a chance, and early in the second half when he was all out for the line he was very well tackled and hurt his leg in the process, after that he was more or less a passenger for the rest of the game. Halamandres played a fine game at full-back; apart from his positioning and kicking, which was perfect, on several occasions he came up with the back division and initiated attacks which ended successfully.

In the early stages St. George's rather surprised Guy's by their confident rushes, but once Guy's settled down they took up the offensive and penned their opponents in their 25. A great round of passing followed, in which all the forwards participated, and after strong backing up Nicholson scored a spectacular try after ten minutes' play, and Kark completed the movement by kicking a really fine goal.

St. George's were rather prone to get offside, and in a short space of time Guy's increased their lead as the result of two good penalty kicks taken by M. R. Kark.

Following a spell of even play, Guy's returned to the attack and, after a scrummage in the 25, Stanyon-Jaques broke away with Fletcher in support, and the latter was given a clear run in for a good try, which Kark failed to convert from an easy position. Near the interval Steytler raced through the centre and, although he could have passed out to the wing, who was unmarked, he cut inside to Stewart, who caught the defence in a tangle and ran in for another unconverted try.

With a lead of 17 points, Guy's started the second half full of confidence, but just when Wright appeared to be going through at top speed, he was splendidly tackled by Anderson, but unfortunately he twisted a leg muscle and was a passenger for the rest of the game. For a long time St. George's put up a fine defence and prevented Guy's from scoring, but eventually a great forward rush ended in E. R. Davies touching down for a try, which was not converted.

In the closing minutes Guy's put on full pressure

and, after several openings had been missed, Allan made a grand zig-zag run before placing the ball near the posts, but Kark missed an easy kick at goal.

Before no-time Allen (who was now playing excellent football) again eluded the defence in another brilliant solo effort, and after he had been tackled by at least two opponents, he hurled himself over for a try, which Crabb converted with ease.

Team.—C. Halamandres; C. G. Wright, J. van A. Steytler, I. McD. G. Stewart, D. M. Douglas; R. D. Allen, K. A. Stanyon-Jaques; M. R. Kark, E. S. Nicholson, H. H. Crabb, E. R. Davies, E. B. French, C. S. Darke (Capt.), P. Fletcher, R. O. Yerbury.

Boxing

THE following will be the Guy's representatives in the Inter-Hospitals Boxing Competition to be held at the Stadium Club, Holborn, W.C., on Tuesday, March 3rd, 1936, at 7 p.m. :—

Fly-weight, 8 st. 0 lb.—R. N. Lewis (Dental).
Bantam-weight, 8 st. 6 lb.—G. G. G. Rees (Dental).
Feather-weight, 9 st. 6 lb.—D. B. Sedwick (Dental).
Light-weight, 9 st. 9 lb.—C. Halamandres (Medical).
Welter-weight, 10 st. 7 lb.—A. Bloom (Medical).
Middle-weight, 11 st. 6 lb.—J. S. F. Watson (Medical).
Light-Heavy-weight, 12 st. 7 lb.—A. S. Lee (Medical).
Heavy-weight (Catch-weight).—P. Fletcher (Dental).

It is very gratifying to note that the United Hospitals Boxing Team, which competed in the Universities Athletic Union Boxing Championships for Universities and Hospitals, held on February 14th, 1936, won for the first time the Championship Trophy presented by Sir Harry Preston.

Guy's had one representative nominated to compete, C. Halamandres, and he retained his title of light-weight champion, after giving a magnificent display. His performance was, without doubt, the best of an excellent evening's boxing, and we congratulate him heartily upon his success.

Fencing

THE INTER-HOSPITALS COMPETITION

IN the Finals of the Inter-Hospitals Competition, Guy's regained the Cup, which had been lost last year to St. Thomas's, by scoring 62 points, the runners-up being St. Mary's, with a total of 53 points.

The Epéeists, R. F. Parfitt and R. Hudson-Evans, gave the Hospital an excellent start by securing third and sixth places respectively in the final pool of eight. This resulted in the foil final being started with a lead of six points over the nearest rivals.

In the Foil event Guy's were again successful in getting both representatives into the final. Paterson, fencing with his usual imperturbable patience, secured second place after a barrage with Tredgold (University College Hospital), while Parfitt again fought well to be placed fifth.

By the time the Sabre finals began, the team work already had assured ultimate victory, and the fights became more light-hearted in consequence. Paterson was the only representative in the final pool of this event. P. H. Denton, the Hospital second sabreur, who has shown a marked improvement during the last year, was considered very unlucky in just failing to qualify for the final pool.

Final results :—

First	Guy's	62 points.
Second	St. Mary's	53 ,,
Third	London	49 ,,

Hospital Information, etc.

Notice

Messrs. John Long announce for publication on March 5th a new novel by Mr. Dawson Gratrix, entitled " There's a Train in the Morning."

Mr. Gratrix, an old Guy's man, was for many years editor of the *British Journal of Dental Science*. His previous novels are " He and Ski " and " Twenty Innocent People."

Papers by Guy's Men

G. W. Elkington. Measles and convalescent serum (with chart). *Brit. Med. Jour.*, 1936, i, 308.

Arthur F. Hurst. Treatment of ulcerative colitis. *Brit. Med. Jour.*, 1936, i, 320.

S. P. Meacock. The borderland of medicine, surgery and dentistry. *Brit. Dent. Jour.*, 1936, lx, 170.

J. Gray. Experimental renal section. *Lancet*, 1936, i, 359.

George F. Stebbing. Prognosis of fractures of the upper end of the femur. *Lancet*, 1936, i, 385.

G. F. Gibberd. Symmetrical cortical necrosis of the kidneys. *Jour. Obst. and Gyn., Brit. Emp.*, 1936, xliii, 60.

Appointments

T. F. Todd, appointed Consultant Obstetrician and Gynæcologist to the Hope Hospital, Salford, Research Fellow at the Christie Hospital, and Holt Radium Institute, Manchester.

Change of Address

A. Churton Taylor, " St. Hilda," 35, Victoria Road, N. Southsea, Hants.

EDS. { P. W. C. / M. A. P.

GUY'S HOSPITAL GAZETTE

A Journal of Medicine, Surgery, Dentistry and Hospital News.

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PASSIM

WE have been talking about the College for a long time now, and it may be that people are getting tired of it. But that seems no reason for stopping. Such of our readers as are not, by now, already asleep may recall that we told them in our last issue that a letter had been written from the Students' Club Committee to the Clubs' Union Council asking the latter body officially to make representations to the Governors with a view to securing their goodwill and co-operation in forming a scheme for the improvement of the existing conditions in the College. We had hoped to be able to report further progress. Unfortunately, the secretary of the Clubs' Union Council has been indisposed (on which we offer condolences), and consequently the Council has been unable to meet. But the matter is being kept in mind, and we will make such reports as we can upon its progress.

We have one piece of news. The Reading Room is to be refurnished and redecorated quite shortly, and a scheme is also on foot for a complete renovation of the Spit. These long-needed palliative measures will be most welcome, and should render the present conditions less intolerable until a new College can be built.

WE have received a letter from Mr. Eckhoff protesting that a rapid reader of our last Editorial would gather that the student who pays his annual five guineas to the Clubs' Union does not get value for his money.

It goes to our heart to think that such people as may read our literary gems should read them rapidly, but we feel that there is truth in what Mr. Eckhoff says. Now it is, of course, quite unreasonable to criticise the Clubs' Union in this matter. We have praised repeatedly in these columns the great and successful efforts that are made by the Clubs' Union on the students' behalf, and we support that efficient body wholeheartedly. Nor is the state of the College any direct concern of the Clubs' Union, except in so far as that the Students' Club is a constituent part of that body. Further, the Clubs' Union Council pays the sum of two hundred pounds a year to the College for the use of the smoking-room, Spit and restaurant, for its members. The fact is, therefore, that, if there must be any allocation of blame for the present state of affairs, such blame must rest on the Medical School, upon whom the responsibility for the College devolves. And that was what we said in our last number. Such being the case, we feel that there can be no doubt that those students who do not play games, but nevertheless have to belong to the Clubs' Union if they wish to eat in the College or attend a meeting of the Debating or Physical Society, do not get full value for their annual five guineas. How great are their numbers is a different question. We quite agree that the axe must always fall on a few, whatever ruling is made, but we feel that in this case it falls on too many people to justify the existing state of affairs. It is impossible to gain statistical information as to the precise number of people who use, to any great extent, the athletic facilities provided, and even if it were possible and showed that such were used by the great majority, that would still be no excuse for the existing state of affairs in the College. That, however, is the fault of the rules and not of the Clubs' Union, and nothing could be further from our wishes than to cast a stone at that able body which does its very best under difficult conditions. Another point in Mr. Eckhoff's letter with which we are in hearty agreement is the amazing apathy with which this subject has been viewed until recently, and we know that it is true that only the committee attend the annual general meetings of the Students' Club. On the other hand, we have lately published a letter protesting against the present state of affairs signed by no fewer than two hundred and twenty-seven members, not to mention a number of others from old Guy's men, one of whom (under a cloak of anony-

mity) unjustly suggests in this number that the Clubs' Union does not give relatively enough money to the Students' Club. This, as Mr. Eckhoff's letter shows, is an entirely incorrect insinuation. But we are not concerned with putting the blame on the Medical School or on any other part of the Hospital organisation, and we join heartily with Mr. Eckhoff in hoping that there will be support and interest taken by all in any proposal to improve the College. We have two suggestions to make. Firstly, we would urge our two hundred and twenty-seven correspondents to appear in force at the next general meeting of the Students' Club, which is shortly to be held, and the date of which we will advertise. Secondly, we would like to invite any Governor, should this chance to strike his eye and should he be in any way interested in the matter, to take luncheon with us in the Spit on any weekday, after which we will gladly make a conducted tour of the College. In the meantime, readers, hope on, and *come to the general meeting of the Students' Club.*

THE rumours have been going around for a long time now that the appointment of "Clinicals" is to be discontinued. For six months or so it has been said that there are to be assistant house physicians instead. The change is now almost in sight. Whether or not the change is to take place in April is not yet quite certain, but the idea, instead of being a mere rumour, is an accomplished fact, and provisional standing orders have been drawn up. Instead of the six Clinicals, as at present, there are to be six assistant house physicians, and, as before, two will be dropped in the competition for the subsequent post of assistant house surgeon. One important change is involved, and that is that candidates for the new appointment will have to be qualified, whereas hitherto Clinicals have been allowed to qualify during the course of their appointment. The Assistant House Physicians will take in for a week in rotation, and will have the privilege of taking or refusing cases just as the Clinicals do now. They will also assist at the Out-Patients of their corresponding Assistant Physicians, and will work under the supervision of their corresponding house physicians. They will be attached as follows :—

A.H.P. A. The Senior Physician ..... 2 beds.
His corresponding Assistant Physician 1 bed.
Physician for Psychological Medicine ..... 1 bed.
Nephritis Clinic ..... 1 bed.

A.H.P. B. The Second Senior Physician 2 beds.
His corresponding Assistant Physician 1 bed.
Clinical Research Unit ..... 1 bed.
Nephritis Clinic ..... 1 bed.

A.H.P. C. The Third Senior Physician 2 beds.
His corresponding Assistant Physician 1 bed.
The Physician for Diseases of the Nervous System ..... 2 beds.

A.H.P. D. The Junior Physician ..... 2 beds.
His corresponding Assistant Physician 1 bed.
Physician for Psychological Medicine ..... 1 bed.
Nephritis Clinic ..... 1 bed.

A.H.P. E. The two Senior Physicians, each 1 bed.
The Fifth Assistant Physician ..... 1 bed.
Clinical Research Unit ..... 2 beds.

A.H.P. F. The two Junior Physicians, each 1 bed.
Physician for Diseases of the Nervous System ..... 2 beds.
Nephritis Clinic ..... 1 bed.

This change will be accompanied by a considerable alteration in the arrangement of the beds of the Medical side. When it comes into force the present female ward "Mary" will become a male ward, and will probably be known as "Bright." "Stephen" will become a female ward, and will probably be named "Mary," while "Clinical" will also be a female ward known as "Miriam." Furthermore, something will be done with the old "Bright," now rendered obsolete for private patients by the building of Nuffield House. It is likely that half of this ward will be used for accommodation for nurses, and the other half will be architecturally adapted for a new Children's Ward. The disposal of the beds among the various physicians is complicated and has not yet been exactly decided.

The prospect of being a spectator at the general change-over of the patients is exhilarating. This might well form part of the Christmas festivities, if it could be deferred so long, for it would form a splendid opportunity for organised games such as "general post" among the two hundred or so patients who will swarm on the staircases with their red blankets in their progress from the old lodging to the new.

WE condole with the Rugby XV on their defeat by St. Mary's Hospital at Richmond on March 10th. An account will appear in our next number.

THE Medical Block, which we once heard described by an eminent man of letters as the "gloomiest place in Europe," is being transformed. A light green and cream colour scheme is being used, which successfully alleviates the darkness to which the vast landings are only too subject, though we have an awful fear that the light green may be only a first coat, to be covered later by some darker colour. We pray that the authorities will preserve it.

Lobar Pneumonia

A Clinical Lecture delivered at Guy's Hospital by Dr. A. H. Douthwaite

GENTLEMEN,—Until a few years ago forms of lobar pneumonia were undifferentiated, and, although we were familiar with its various degrees of virulence, its vast array of complications, and its multiplicity of signs, yet only since the recent discovery of the existence of various types of pneumococci have we been enabled to understand in some small way the reasons for its vagaries.

BACTERIOLOGY

The Friedlander's bacillus accounts for about one per cent. of cases, and carries with it a bad prognosis. Apart from this, nearly all cases are due to infection with types I, II, III or X pneumococci. The letter X is used instead of the figure IV because it represents a heterogeneous group which occurs as common saprophytes which may, however, become pathogenic to man. Of the well-defined groups the first and second are the commonest to cause lobar pneumonia, and the prognosis is most favourable in that order. Type III is responsible for about ten per cent. of cases, and the outlook here is very grave. Group X is responsible for about a quarter of the cases, and is associated with good prognosis.

It was once thought that no immunity was conferred by an attack of pneumococcal pneumonia, for it is not unknown for one individual to have two or three attacks of this disease. It appears, however, that a considerable immunity is, in fact, produced by an attack, but only for the particular type of pneumococcus then operative.

As type X is the only common saprophyte, it must be clear that, even though it attain pathogenicity, auto-infection cannot be responsible for the majority of pneumonias. On the other hand, the virulent types are capable of propagation by carriers, and the number of these rises during the winter months. This and, no doubt, the but little understood influences of climate and cold winds act in conjunction to raise the pneumonia incidence to a peak at the end of the winter.

PATHOLOGY

Available evidence goes to show that lobar pneumonia does not start as a blood invasion. Positive blood cultures are rarely obtained in the first few days of the disease, and usually in favourable cases this is never feasible. The organisms actually reach the alveoli by, in the first place, penetrating the mucosa of the larger bronchi. They then travel into the substance of the lung by the peri-bronchial and peri-vascular lymphatics, finally to pass through the alveolar walls, there to produce the typical inflammatory reaction. But little resistance is offered to their passage through the interstitial tissue, and therefore the inflammation here is minimal.

It follows, thus, that the well-known stages of congestion, red and grey hepatisation, and resolution will tend to arise centrally and pass peripherally, so that in any lung thus affected it is usually possible to observe two or more of the stages at any one time, the more recent being nearest to the surface. The peculiarly dry, red, rough, cut surface presented by red hepatisation is produced by clotting of the inflammatory exudate. The colour is partly due to erythrocytes in the alveoli, but largely to the extreme dilatation of the capillaries in the alveolar walls. The grey, moist stage is caused by retraction of the clot, exudation of serum, and the distension of the alveoli to such degree that the vessels in their walls become occluded. The blood supply to the diseased lung is thus in parts completely shut off.

It is not clear how the process of resolution is brought about. It does not necessarily coincide with the crisis, although clinical signs in the nature of redux crepitations can usually be observed within twenty-four hours of this event. The portion of lung so affected takes on a gelatinous, semi-translucent appearance as the result of the liquefaction of the inflammatory products. The proteolytic ferment is produced from the polymorphonuclear cells of the exudate, and, if they are scanty, organisation with carnification of the lung may take the place of the usually remarkably complete return to the healthy state.

SYMPTOMS

The commonest initial symptoms are shivering and pain in the side. Next to these, headache and vomiting are met with. Cough, pain in the abdomen and hæmoptysis are less frequent as the earliest manifestations. Abdominal pain arises from pleurisy over the lower portions of the lungs or the peripheral parts of the diaphragmatic area, and may be so intense as to be associated with collapse. It is not unknown for such cases to be subjected to operation for a supposed abdominal emergency.

Early hæmoptysis produces bright red blood with very little mucus. It must be distinguished from the characteristic rusty sputum whose colour is due to changed blood and is seldom seen before the third or fourth day.

SIGNS

The rhythmic movements of the alæ nasi, the bright eyes, flushed face (if unilateral, then usually on the pneumonic side), quick, shallow breathing, normal decubitus and peculiar expiratory grunt form a diagnostic picture which must be familiar to nearly all of you. I have never been satisfied with the explanation of the grunt as a protective mechanism against pain devised to check the rising diaphragm. It is often observed when there is no pain, and in any case the phase of respiration which it favours is precisely that which is rarely characterised by pleuritic discomfort. The rapid, shallow respiration is sometimes attributable to the pain of pleurisy, but often the rapidity is referable to partial anoxæmia, a fact which vindicates the use of the oxygen tent even in the absence of cyanosis. It is in no way related to the extent of lung involvement, neither is it invariably to be seen in pneumococcal pneumonia. Herpes labialis occurs in this more often than in any other infectious disease; it seldom appears before the second day, and, when present, usually indicates a favourable prognosis.

With the rapid initial rise of temperature to 102° or more, the pulse assumes a full, bounding, regular quality which, in favourable cases, is preserved throughout. The systolic blood pressure falls 10-20 mm. Hg. in the previously healthy person, but in the hyperpietic it may fall 50 or 60 mm. without any implication of impending doom such as would be suggested by a like fall in the absence of previous hypertension. The cardiac sounds are but little altered. Accentuation of the second sound in the pulmonary area is normal; some muffling of the first sound, and a short, soft, systolic murmur, are common in the later days of the disease and referable to the effect of the toxæmia on the heart muscle.

Leucocytosis is an important feature of lobar pneumonia. Counts from 15,000 to 30,000 are common and satisfactory. The majority of type I cases give a count of over 20,000 in the first three days, followed by a fall to about 15,000 on the fifth day and a pre-critical rise to 20,000 to 25,000. Type II cases follow in general the same course, but tend to swing between 12,000 and 18,000. Type III cases, as might be expected from their severity, give counts ranging from 6,000 to 14,000. A count taken on the second or third day may thus be helpful in indicating the type of infection and, therefore, the best line of treatment. The X cases, however, resemble in this respect type I.

A trace of albumen in a dark concentrated urine is a common finding and referable to cloudy swelling of the renal cells. The remarkable disappearance of chlorides from the urine is a unique feature of this fever. It may be so complete that no turbidity is produced by the addition of silver nitrate solution.

I have no intention of wasting your time by a discursion on the physical signs produced by a solid lung. These you knew even before you entered the wards. The difficulty of diagnosing lobar pneumonia often lies, however, in the absence of such evidence. As we have noted, it probably always starts as a central consolidation which is covered by relatively normal lung. For this reason it is more important to be familiar with the general, as opposed to the local, characteristics of pneumonia. One very helpful local sign in chest disease is diminution of movement of the affected side. This may be evident long before dulness and bronchial breathing appear. Hyper-resonance, or a raising of pitch, may be noticed over the affected lung; the danger is, of course, that this may be mistaken for normal resonance, and the sound side be regarded as diseased. Dulness with complete absence of breath and voice sounds may be misleading; it is due to massive exudate blocking the larger bronchi. Finally, a warning against too free diagnosis of right apical pneumonia in children. Posteriorly in this region the breath sounds approximate to those produced by solid lung, and only by constant comparison of healthy and diseased areas will you teach yourselves to avoid this pitfall.

The central nervous system may present such marked signs in pneumonia as to confuse the diagnosis. Thus, children often start the illness with headache, vomiting, drowsiness or even coma. Added to this may be neck stiffness and head retraction, so that there is small wonder that they should be regarded as meningitics. The cerebrospinal fluid in such patients is normal except for a slight increase of protein. The symptoms pass off as a rule in twenty-four hours and the nature of the disease becomes manifest. This so-called "meningism" probably represents toxic (specific or merely pyrexial) irritation of the brain and meninges. The very sudden onset, the rapid respiration, the flush (if present) and a tendency of the signs to vary appreciably in intensity from hour to hour help to indicate the true nature of the disease, but some mistakes are unavoidable.

A low, muttering delirium may occur early in virulent infections, and usually passes into coma and death in a few days.

The termination of pneumonia is usually dramatic, the temperature falling by crisis with corresponding return of pulse and respiration rates to normal. The crisis generally occurs on the seventh or ninth day of the disease. If pneumonia persists for more than twelve days the temperature then falls by lysis.

A pre-critical rise of temperature is common and important. The day before the crisis it may rise to 105° and be associated with delirium. This causes much alarm, but, if all the signs up to that time have been favourable, one can confidently predict the crisis and recovery within twenty-four hours. The pseudo-crisis is less often seen. The temperature falls rapidly, but the patient's general condition is unaltered and the pulse rate is unaffected. The pseudo-crisis is followed by a further rise of temperature, and this again by true crisis.

PECULIAR TYPES

Apical pneumonia in children is peculiarly liable to be associated with meningism, and with unilateral flushing of the face. In children, again, migratory pneumonia is often encountered. In this state the patient presents the classical general features of pneumonia, and over one area of lung are audible fine dry crepitations common to the early stages of inflammatory exudation. Diminished movement will also be observed on this side. The next day the signs may have shifted to some totally different area on the same or opposite side, and the process of flitting signs may be repeated on three or four occasions, ultimately settling down with frank consolidation or, alternatively, disappearing completely with defervescence.

Symptomless pneumonia is a misnomer, but I have met two cases to whom I was called on account of slight malaise and headache of three and five days' duration, who presented all the signs of extensive lobar consolidation. Both patients were young adolescents and ambulatory up to the date of examination.

Asthenic pneumonia is simply lobar pneumonia in the very feeble; usually the very old. Rapid and feeble pulse, rapid breathing, trivial pyrexia, scanty chest signs and early death present a picture which is difficult to distinguish clinically from that of asthenic bronchitis. A few cases develop a late satisfactory reaction and recover; this never occurs if opium or its derivatives are given to them.

COMPLICATIONS

Empyema is the complication of outstanding importance because of its relative frequency (about 7 per cent.). It usually develops when pneumonia appears to be over and done with. The crisis has occurred, all danger seems to have been averted but a tell-tale low pyrexia is to be seen in the temperature chart. Pyrexia of 99° in the evening only is noticed for two or three days after the crisis, but this must be taken as a warning of the probable sudden rise of temperature which marks the beginning of empyema. The pneumonic and empyemic temperature curves contrast strikingly, the former being of maintained type, the latter fluctuating through several degrees daily.

Pericarditis occurs in less than 2 per cent. of cases. It, again, arises late in the disease and is responsible for a sudden change in the patient's appearance. From a position of comfortable recumbency the sufferer is converted overnight into a pallid, gasping and frightened individual who sits up and forwards, impelled thereto by urgent dyspnœa.

Meteorism is a troublesome and serious complication. The abdomen becomes enormously distended and tympanitic. Musical tinkling sounds can be heard on auscultation. Liquid fæces are passed in small quantity, perhaps once in two days, and are dark and foul-smelling. Movement of the diaphragm is, of course, seriously impeded and the heart's action likewise embarrassed. The complication occurs usually in the elderly or in those in whom the pneumonic attack has been of great severity. In every case I have investigated there has been concomitant uræmia, the figures ranging from 100 to 370 mgm. per 100 c.cm. This has not been associated with a low concentration of urea in the urine, however, and if recovery takes place the blood urea falls rapidly to normal. Jaundice, muscular twitching and mental confusion may occur before or after the crisis and persist for a week or ten days. In all such cases, again, I have found a greatly raised blood urea. The association of muscular twitching and uræmia is, of course, recognised. Femoral thrombosis which may cause permanent œdema of the limb, colitis and severe diarrhœa and meningitis occur as occasional complications, as also endocarditis, peritonitis, otitis media and arthritis. In practice, however, the only ones you are likely to meet except very rarely are empyema, meteorism, toxic psychosis and thrombosis.

PROGNOSIS

Bad prognostic points are: (1) Sleeplessness in spite of drugs; (2) feeble handshake; (3) falling blood pressure, rising and feeble pulse and weakening of first heart sound and of pulmonary sound; (4) leucocyte count of less than 12,000 or more than 60,000; (5) appreciable augmentation of apical systolic murmur with dilatation of heart; (6) cyanosis—still more so an ashy colour with

sub-cyanotic tinge of lips ; (7) refusal of fluids ; (8) feeble pyrexial reaction ; (9) old age (*i.e.*, over 70 years), enfeeblement from other causes, alcoholism ; (10) jaundice ; (11) colitis ; (12) meteorism ; (13) meningitis ; (14) pericarditis ; (15) asthenic type (*q.v.*) ; (16) drowsiness and feeble movements from the outset ; (17) infection with type III pneumococcus or Friedlander.

Conversely, a high (102° to 104°) maintained temperature, herpes, leucocytosis, liberal fluid intake, sound sleep and steady pulse—respiration—blood pressure ratio are favourable.

TREATMENT

1. *General.*—This is still quite the most important line of therapeutics. Remember that the danger in pneumonia lies in weakening of the heart and vaso-motor system. Absolute rest is, therefore, essential. Once your diagnosis is made do not disturb the patient again for full examination. If effusion develops early in the disease it will be detected by a shift of the heart, and the usual signs laterally. Empyema in adults almost always follows the acute fever. Complete washing is an unnecessary and dangerous fetish. For the same reason the four-hourly changing of hot, sticky slabs of antiphlogistine is to be avoided. There is no evidence that local applications of heat as poultices or jackets favourably influence an already adequately heated lung. Restriction of movement on account of pain is admittedly good, and can be achieved by special belt or straps. The pneumonic patient must sleep or he will die. In the absence of pain, 20 grains each of chloral and bromide, and ½ oz. hot whisky with water repeated in two hours if necessary, is usually adequate and, on the whole, better than the barbiturates. The latter drugs and paraldehyde may cause intense restlessness in feverish patients. If there is pain, use opium either as Dover's powder or by injection as morphine. There is no danger in the absence of cyanosis or prostration. Avoid heavy bedclothes, stuffy rooms and visitors ; they are all inimical to success.

Constipation may be treated with infusion of senna or cascara, but if the bowels are opened at the beginning of the disease it is not important for weakly patients to secure evacuation again for several days. The struggle with a bed-pan consumes much energy. Plenty of fluid (Vichy water and lemon squash are more palatable than water and barley water), diluted milk and glucose are all that are needed for a short feverish illness. Above all things obtain a capable day and night nurse.

2. *Drugs.*—Apart from those mentioned for sleeplessness and pain we have only to consider oxygen and digitalis.

In a patient who is obviously doing well it is better to avoid all special treatment. In others oxygen should be given and continuously. The oxygen tent is the most effective method of administration, but the depressing effect of living inside it should not be overlooked. Nervous patients are better with nasal oxygen administered through a double nasal catheter. The tube and funnel method is quite futile.

Experimentally it has been shown that digitalis strengthens the contraction and reduces the dilatation of a feeble myocardium, but this effect is not seen on a heart perfused with nutrient fluid. Clinically we have the testimony of the older physicians, who watched their patients with unaided senses. They favoured digitalis given early and throughout the illness. It is unwise to reject this testimony.

3. *Local and Specific Treatment.* I have seen great relief follow the induction of a partial pneumothorax in lobar pneumonia with intense pain. This can only be useful when the pleurisy outstrips as it were the wave of consolidation, and should never be undertaken unless all usual measures fail to bring relief.

Vaccine enthusiasts declare that the early administration of 200 million each of pneumococci, streptococci and bacilli influenzæ cuts short the attack. The mortality of lobar pneumonia is about 20 per cent. Of these, the majority are elderly. It is clear, therefore, that to appraise treatment at its true value one should have figures relating to not less than 1,000 cases adequately controlled.

Felton's Concentrated Serum.—Here we reach more certain ground. Sera against types I and II are available, and have been thoroughly tested here and in U.S.A. The consensus of opinion is that their use causes a striking amelioration of symptoms and some curtailment of the disease; 20,000 units are given intravenously every four hours for four doses, and, if improvement is shown, then thrice daily for three more doses. The total of 140,000 units costs ten guineas. It should therefore be used only if grave signs occur in the first day or two in cases of type I or II pneumonia.

In rare cases of delayed resolution diathermy appears to be of value. The danger of organisation of the exudate must be borne in mind if the signs of solidification are unchanged for seven days after pyrexia has subsided.

Remarks on the Defences of the Body Against Cold

A Paper read before the Physical Society by R. T. Grant, Esq., M.D., F.R.S.

GENTLEMEN,—It is a matter of common physiological knowledge that body temperature is regulated mainly by muscular activity and by the cutaneous circulation. The body protects itself against cold by constricting the skin vessels, so reducing the loss of heat from the body, and by stimulating the muscles to activity, thus increasing the production of heat within the body. It is not so well known that another mechanism exists, a local mechanism, for protecting exposed parts against the local effects of cold and which is in part independent of the first more general mechanism. It is specially of this local mechanism that I wish to talk to you this evening.

Some years ago, when working on the peripheral blood vessels with Sir Thomas Lewis at University College Hospital, I had occasion to seek for a suitable preparation for observing the reactions of arteries to locally applied stimuli of different kinds. A suitable preparation was found in the rabbit's ear. This thin structure in specially selected animals offers a very clear view of the blood vessels to naked-eye and microscopic examination. While examining stained preparations of vessels that had been observed during life, I noticed what seemed to be short circuits between the arteries and the veins, and on further investigation these proved to be arteriovenous anastomoses, vessels much larger than the capillaries and of a different structure. I was naturally pleased about finding what then seemed to me to be a new type of vessel, and I spent some time devising a method of intravascular staining and working out the anatomy and histology of these vessels. On referring to past writings, however, I found that I was not by any means the first to observe them; this had been done by Sucquet as far back as 1862, and even so long ago as 1877 Hoyer had used a similar staining method for demonstrating these vessels in animals.

The matter did not rest here. In the stained preparations, these vessels were so large and obvious, their internal diameter being from 20 to 70μ, that it seemed they ought to be visible under low magnification during life. By good luck I was able to see one or two of them in the first rabbit I examined from this point of view. I say good luck, because I failed to find them in the next half-dozen rabbits, and I only persisted in the search because of the stimulus of the first success. Ultimately it was found that, in thin ears and under certain conditions of observation, the anastomoses could be seen clearly during life and recognised as such without doubt. This was a point of some interest, for, up to that time, no observations had been made on the physiology of these vessels, and we had no conception of their functions based on experiment. Among a number of hypotheses which now seem to us to be extravagant, one plausible suggestion was made. Hoyer thought that since the anastomoses seemed to be confined to outlying parts of the body, they might have to do with maintaining the warmth of these parts when exposed to cold.

This question of maintaining the warmth of outlying parts was much in our minds at that time. Lewis had been working at the effects of cold on the blood vessels of the human skin, and he had studied, under controlled conditions in the laboratory, the reaction which you must have experienced in your own persons. You must have noticed how, even in very cold weather, your face, hands and feet may yet be comfortably warm, and again, for example, when making snowballs you must have appreciated the grateful glow that succeeds the first painful coldness of your fingers. Lewis found that, when cold of a sufficient degree is applied to the skin, the cutaneous vessels dilate, and this dilatation, by allowing a great increase in the blood flow through the cooled part, tends to prevent its temperature from falling too low. He noted that, though the reaction was well shown by the extremities, the fingers and toes, it could be obtained but rarely and then only in a small degree, from the skin of the forearm, a fact for which there was then no satisfactory explanation.

Now to go back to the rabbit. That the anastomoses could be observed during life gave us an opportunity to find out something about their physiology and to form some conception of their functions. I have not time to go into the details of the observations that were made. I need only say that the anastomoses react to mechanical stimulation, histamine and acetylcholine by dilatation, and to adrenaline by constriction. They are particularly responsive to sympathetic nerve impulses, and have an unusually rich supply of these nerves. We found, further, using methods similar to those used by Lewis on man, that the rabbit's ear, when exposed to cold, displays a temperature reaction closely resembling the human one. Simultaneous temperature measurements and microscopic examination of the ear during cooling showed that the increased blood flow responsible for the temperature reaction is

brought about mainly through a wide dilatation of the arteriovenous anastomoses. Thus it happened that, a good many years after it had been made, Hoyer's original suggestion as to the function of the anastomoses was supported by experimental evidence. It is of interest to note in this connection that Grosser records the absence of these vessels from the outlying parts of the reptilian body.

In passing, I may mention that, in addition to this local function of maintaining the temperature of the ears when these are exposed to cold, the anastomoses were found to be an important factor in regulating general body temperature. They aid the dispersal or conservation of heat by dilating or constricting under the influence of the sympathetic nerves and so greatly increase or reduce the blood flow through the ears.

Having got this evidence for the rabbit, it was natural to suggest that perhaps in man also the anastomoses are mainly responsible for the reaction to cold. At that time but little was known about the distribution of the anastomoses in man; they were known to be present in the

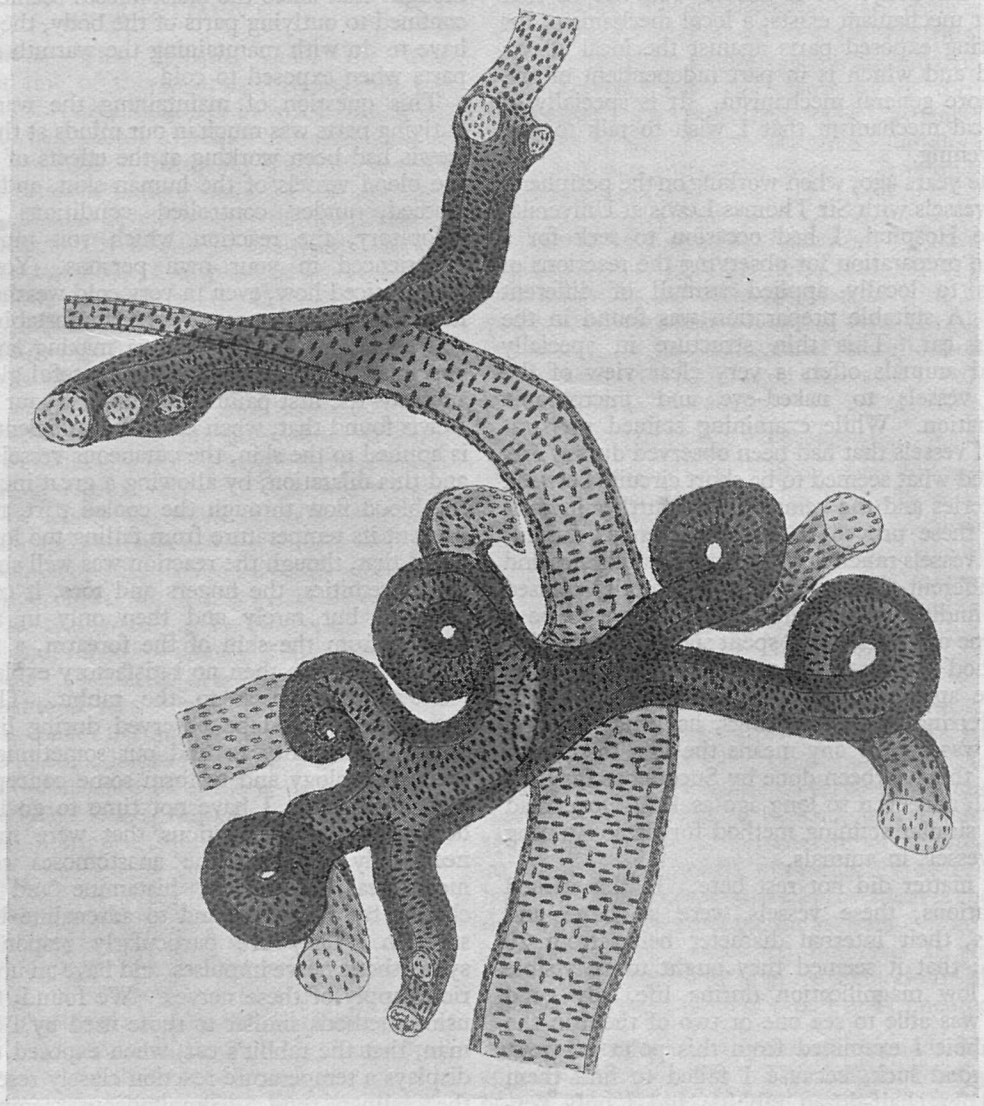


Fig. 1

Projection drawing (x 74) of a group of anastomoses in the nail bed of the toe. The artery crosses the centre of the drawing and gives rise to 12 thick-walled anastomotic branches. The thin-walled venous terminations of several are shown.

finger-tip. Lewis thought that if the anastomoses were responsible for the rise of temperature in the fingers during cooling, then the reaction might begin earlier and rise to a higher point there than elsewhere along its length. This he found to be the case, and with this suggestive evidence Bland and I continued the investigation.

In 1908, Schumacher had described numerous anastomoses in the feet, and specially in the toes, of birds. This was of interest to us, for, as you know, birds have small feet at the end of long thin shanks, and their feet in winter time are usually in contact with cold and often frozen surfaces, or are immersed in cold water for long periods of time. We confirmed for ourselves the presence of numerous anastomoses in the feet of the duck and hen. We then tested the effect of immersing the feet in cold water, and found that in both birds the feet gave a conspicuous temperature reaction closely resembling that in man and in the rabbit's ear. These observations on the bird's foot offer another instance of a vigorous reaction to cold in a part of the body rich in arteriovenous anastomoses, but they do not provide proof that these vessels are specially concerned in the reaction. We did not carry our observations further in the birds ; we were not able to observe the anastomoses directly during life as we could in the rabbit, nor did we find the bird's foot suitable for observations such as we made in man, and which I shall now describe to you briefly.

First of all, the anatomy of the anastomoses in human skin. Owing to the difficulty of obtaining material sufficiently fresh, we were not able to make a complete study of the distribution of the anastomoses in the skin ; we were able, however, to study this in the forearm and hand, leg and foot, and these observations were sufficient for our purpose. We applied to man the same method that we had found useful for the rabbit.

In frozen sections of tissues prepared by this method of intravascular staining, the deeply stained and distended vessels stand out clearly from the surrounding faintly stained tissues, and the different types of vessel are easily distinguishable. The anastomoses are specially conspicuous by reason of their thick muscular walls and by the peculiar epitheliod modification of the muscle cells. These cells are shorter and rounder than ordinary smooth muscle cells and have oval or globular instead of rod-shaped nuclei. The significance of this structural modification is not known, but it is this characteristic that makes the anastomoses stand out in sections prepared in this way. The anastomoses are arranged chiefly in groups situated at the level of, or a little superficial to, the sweat glands. They are thus too deeply placed to be seen from the skin surface during life.

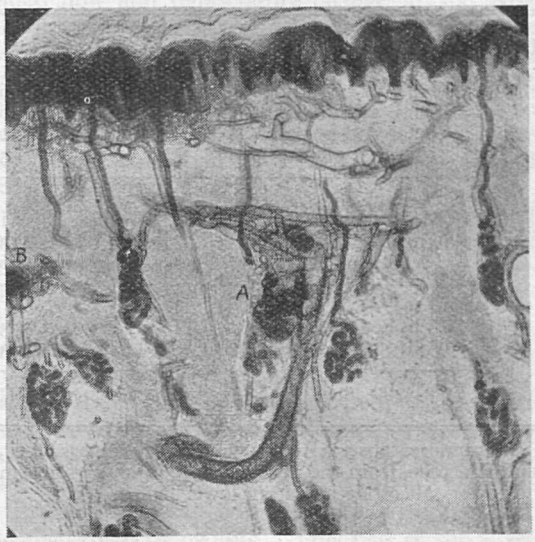


Fig. 2

Untouched photomicrograph (x 25) of portion of a vertical section (200μ thick) through the pad of a toe. The vessels and coiled sweat glands show up clearly against the faintly stained background. Note the vessels of the subpapillary venous plexus standing out as though drawn. In the centre of the figure an artery turns towards the surface from the left, it gives rise to a group of darkly stained anastomoses (A), the details of which are not visible. Part of another group of anastomoses is to be seen in the middle of the extreme left of the figure (B).

Figure 1 is a drawing (x 74 diameters) of a group of anastomoses in the nail-bed of the toe. An artery crosses the centre of the drawing and gives rise to a number of thick-walled anastomotic branches. The thin-walled venous terminations of several of these branches are also shown. Figure 2 is a photomicrograph (x 25 diameters) of a portion of a vertical section (200μ thick) through the pad of a toe. The vessels and coiled sweat glands show up clearly against the faintly stained background. The vessels of the subpapillary venous plexus are seen beneath the epidermis. In the centre of the figure an artery turns towards the surface from the left ; it gives rise to a group of darkly stained arteriovenous anastomoses (A). Part of another group of anastomoses is to be seen in the middle of the extreme left of the figure (B). Our observations on the distribution of the anastomoses in human skins are summarised in the Table. Briefly, we may say that they seem to be confined to the nail beds, where they are most numerous, and to the palmar aspect of the hand

and fingers and the plantar aspect of the foot and toes.

TABLE.

Number of anastomoses per 1 cm² surface area.

Hand.	Index finger—	
	Nail bed	501
	Tip	236
	Palm, 3rd Phalanx	150
	,, 2nd phalanx	20
	,, 1st phalanx	93
	Palm—	
	Metacarpo-phalangeal joint, 3rd finger	31
	Thenar eminence	113
	Hypothenar eminence	96
Foot.	2nd toe—	
	Nail bed	593
	Pad	293
	Sole, near heel	197

Anastomoses absent from: dorsum of fingers, toes, hand and foot, from the flexor surface of lower forearm and lower calf of leg and from lower half of ear.

Bearing these anatomical findings in mind and assuming that they represent the normal distribution, we next cooled different parts of the skin to see if their temperature reactions showed any relationship to their anastomotic content. This we found to be the case. We confirmed Lewis's observation that it is difficult to obtain a response from the forearm, and we found also that the same difficulty is experienced with the calf of the leg and the dorsum of the hand and foot, and you will remember that these are the parts where we failed to find anastomoses. On the other hand, a vigorous response is almost always to be obtained from the palm of the hand and the sole of the foot. These observations strongly suggest that the differences in the temperature reaction of these various regions may depend, at least in part, on the presence or absence of arteriovenous anastomoses in the skin.

It might be said, however, that the ridged skin of the palm and sole differs from that of the back of the hand and foot not only in the presence of arteriovenous anastomoses, but also in richness in blood vessels generally, and that the greater temperature response obtained from the ridged skin may be due only to its greater vascularity. That the presence of anastomoses is not essential to the development of the temperature reaction is shown by the occasional small response of the forearm and back of the hand and by the fact that the very vascular lobe of the ear, though apparently free from anastomoses, gives a very good temperature reaction in response to cooling, Further observations, however, give us strong evidence that in the hand the anastomoses take part in the vascular reaction to cold and by their number modify the degree of the response.

In the first place, we find that the temperature reaction is not uniform over the palm and fingers. Thus, if we cool the ulnar side of the palm, the response from the hypothenar eminence is greater than that from the base of the fifth finger, and, as I told you, anastomoses are more numerous in the hypothenar eminence. Again, the tip of the finger, where anastomoses are very numerous, reacts sooner and more strongly than does the palmar surface of the finger, as is shown in Figure 3. This is a chart of the temperature from three points, from the tip of the fifth left finger (L5T), the tip of the third left finger (L3T), and the middle of the palmar surface of the second phalanx of the right fifth finger (R5P2P). The temperature of the tip of the fifth left finger was taken as a control to show that the reaction observed in the other parts was not merely part of a general vasomotor response. The time is shown along the top of the chart. At 2 minutes, the two other parts of the fingers were immersed in crushed ice. Their

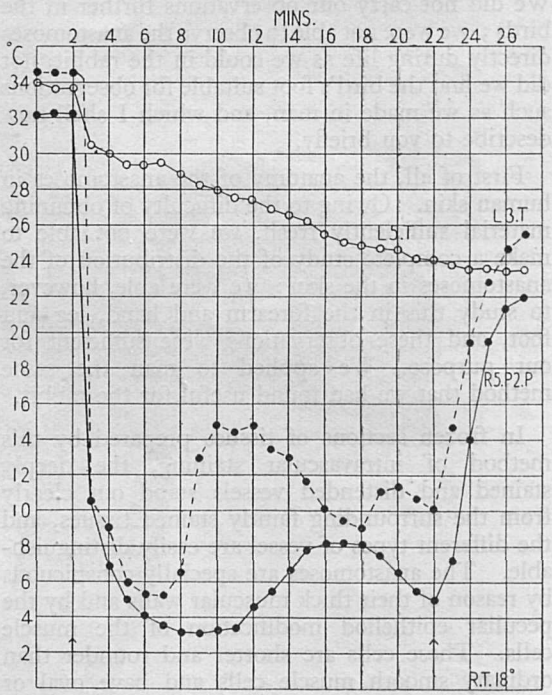


Fig. 3

Chart of temperatures at middle of palmar surface middle phalanx, right index finger and at tip of left middle finger. Control temperature from tip of left 5th finger. Terminal phalanx L3T and middle phalanx R5P2P immersed in crushed ice.

temperatures fell steeply, as shown by the scale to the left of the chart. During their immersion, their temperatures rise, that of the tip of the third left rising sooner and higher than that of the middle phalanx. These parts were removed from the ice at 22 minutes.

In the second place we find that this difference in the different parts cannot be correlated with the capillary supply to these parts. We have counted the number of capillaries present by examining microscopically the blistered skin of the hand. There is no close correspondence between the degree of the temperature reaction and the number of capillaries. Moreover, examination of serial sections shows that the only apparent difference in the vascularisation of the tip as compared with the palm of the finger, and of the hypothenar eminence as compared with the skin over the metacarpophalangeal joints, lies in the number of anastomoses and associated veins, more being found in the areas of greater reaction. It seems reasonable to conclude that the anastomoses take part in and exert a considerable influence in the reaction to cold.

We have obtained further evidence of the participation of the anastomoses in the response to cold by observing the capillaries microscopically during cooling and comparing the reaction that takes place in skin free from anastomoses, for example, the forearm and back of the hand, and skin containing anastomoses at the base of the finger nail. As a result of experiments made in this way, we find that, although there is no, or almost no temperature reaction in the forearm or back of the hand, yet there is always a vascular reaction; an increased blood flow always occurs as a result of cooling. As the skin is cooled, the capillaries at first contract and some may disappear from view; the blood flow slows and may even be arrested. As cooling is continued, the capillaries gradually relax and become dilated and the blood flow increases greatly. The failure of the temperature reaction in the presence of a vigorous vascular reaction we can only attribute to the insufficient vascularisation of the part, and in particular to the absence of arteriovenous anastomoses.

But now, when we examine the base of the nail, beneath which lie the very numerous anastomoses of the nail bed, we see a very different picture. Here we usually get a vigorous temperature reaction and, if this were due to changes in the capillary blood flow, then we should expect to see the flow increase with the rise of temperature. When cooling begins, the minute vessels contract as in the back of the hand, but while, as also in the back of the hand, the capillaries then gradually relax, the subsequent changes in blood flow are very variable and bear no constant relation to the change in skin temperature. It seems to us that this lack of correspondence between capillary blood flow and temperature change at the base of the nail can be explained best, or only, on the assumption that the underlying anastomoses not only take part in the reaction to cold, but are chiefly responsible for the rise of temperature, the blood being more or less diverted from the capillaries and pouring through the dilated anastomoses into the veins.

On this evidence, we believe that in man, just as in the rabbit, the arteriovenous anastomoses serve the function of maintaining the temperature of the outlying parts when these are exposed to cold. Also, we have other evidence into which I shall not go, to show that just as in the rabbit, so in man, the arteriovenous anastomoses take part in the regulation of body temperature. In man, however, that part is small, for, in his relatively hairless body, there are other mechanisms more effective for this purpose.

Just a word as to how this local vasodilatation is called forth by cooling. This part of the story is not clear, but there is a good deal of evidence to show that cold of sufficient degree releases some substance, the nature of which is not known, from the tissues. This substance, acting partly through the local nervous mechanism and partly directly on the vessels, provokes vasodilatation.

So you see, then, that there are two mechanisms for the protection of the body against cold. There is a general one, the reflex constriction of all the cutaneous vessels by the application of cold to even only one part of the body. There is also this local one by which cold calls forth vasodilatation in a cooled part. You may regard these two mechanisms as serving conflicting interests. The general mechanism, by reducing the loss of heat from the surface of the body, tends to conserve the internal for the benefit of the vital centres. The local one, by bringing more blood to a cooled part, tends to maintain the temperature of that part. This depletes the store of heat in the body, and so tends to defeat the object of the general mechanism. However, the safety of the centre seems to be more important than that of an outlying part, and so, unless there is sufficient heat within the body, the local mechanism fails to keep an outlying part warm. This is so, not because vasodilatation fails to occur in the cooled part, but because the arteries proximal to the cooled part are so constricted by high vasomotor tone that they prevent any material increase of blood-flow more peripherally. So that if you wish adequately to protect the outlying parts against the injurious effects of cold, you must maintain sufficient heat within the body, either by warm clothing or exercise.

The Residents' Play

" VICE VERSA," or " THE LADY WITH THE LAMP."

By C. G. Baker and M. A. Partridge. Lyrics by C. G. Baker. Music by Oliver Ive.

THE play has come and gone. The limousines purr back to Wimpole Street, and the Staff is safe for another year. The great men breathe again, and perhaps those who have not been chastised smile wimpsically on their journey home.

Mr. Anstey's immortal book provides the inspiration for the play (nor is this surprising, considering how long our schooldays linger on at Guy's), and the curtain rises on the College bathroom. It is 11 a.m. on the morning after a Residents' Going-Off Dinner, and Cope's classic torso and legs are seen beneath the shower. Feebly he wipes his tender head and moans for aspirins. Quicker than ever in life Shipcott obliges. The epitome of manhood, our hero, Boucher, enters, and tender hearts beat faster. But he, too, is ill. Sickness reigns supreme, challenged only by the rude health of Blatant bellowing in the College for his H.S., which migrainous gentleman is discovered having fallen asleep in the bath, and, festooned with last night's trophies, is gently looked after by Sister Annabella, who appears with lamp in hand, fresh from Ethiopia, whence she has acquired it while organising the ambulance service. " Rub it," says the hero, voicing the general interest displayed in the lamp which has magic properties. Annabella makes a furtive stroke. Crash, darkness, and behold the djinn in glabrous gorgeousness. His song unfolds his simple tale :—

SONG OF THE DJINN

Chorus—

I'm angio-neurotic œdema,
The Hospital Resident Djinn.
'Neath the shadow of Guy
My mischief I ply,
I'm the apotheosis of trouble, the *fons et origo* of sin.

Verse—

The work at Guy's
I supervise with malice spiteful ;
I torment the Staff in fashion frightful.
'Neath the feet of wardmaids as they cross the Park I creep,
Then I give a tweak,
You have heard them shriek.
Surgeons operating then I harry,
Cause the schemes of Gibberd to miscarry,
I cause uneasy feelings in the Matron's little dog,
And that fount of reason,
Mr. Eason, I befog.

Annabella can have whatever she will, the Djinn being her slave. Realising her omnipotence, she demands a new Ashdown. It comes. What more can woman want ? She thirsts to try the magic. Curtain.

Glioma, the heroine, and Nurses Meningismus (W. H. Hamilton), Trismus (Morton Palmer), Strabismus (Harris), tell us of their passions for the Olympians :—

NURSES' CHORUS (Act. I, Scene 2)

When first we left our homes to start our training
Our thoughts were simple, and our ways demure.
The other sex we found unentertaining,
We never fell for masculine allure.
But the Staff here at Guy's
Have quite opened our eyes
To sex appeal.
In maidenly fashion
We hide the passion-
ate way we feel ;
But when fond love as yet is unrequited,
It's hard to cultivate that outlook pure.

Verse—

When I'm feeling in the blues I could flirt with Joey Hughes ;
I'd love to play sardines with Lambrinudi.
Be with Douthwaite in the News, or meet Poulton on a cruise ;
How divine to dine with Hurst or dance with Rudy !
But I wouldn't answer " No," if asked to go with Bo,
By force of Law I would be very partial ;
I could never answer Knott if asked by Eric Scott,
I can't resist the crooked smile of Marshall.

Verse—

Though he reads me like a book, I would perish for Frank Cook,
For Massie I would wait till I was thirty ;
I wouldn't care a damn if I died for little Stamm,
I'd Grant the very wish of dear George Doherty.
Though I'd love to skate with Mollie or play snap with Davies-Colley,
With Coney I could live in squalor sordid ;
And though it would be jolly to fling myself at Lolly,
I'd give my all for Vertue unrewarded.

—and then return to their more concrete affections : the house officers. Here jealousy creeps in among the nurses, for not only the heroine has peeped up the hero's sigmoidoscope, and when Love enters, cold looks greet him. Felix Mas, irresistible as he may seem, is repulsed by Glioma ; then the Out-Patients begin.

Enter Suppressme (Ponder), psychology in its most attractive form, followed by the lady helps whose admiration for intellect in such a disguise is not to be wondered at. In a delicious song Mrs. Probyn and Miss Outlet give us a titillating

inkling of their knowledge of the depths of the unmentionable, while Cramsome (Cameron), who distrusts complexes, upholds the cause of honest God-fearing physicians and leads the inspiring chorus, " Play the Game " :—

SOCIAL WORKERS' AND CRAMSOME'S SONGS (Act I, Scene 2)

Social Workers.
Verse—
We are the social workers,
We go from door to door,
Inspecting home conditions,
And the morals of the poor.
We probe into the reasons
For all forms of human vice,
Into social sexual problems
And others not quite nice.

Chorus—
Though you may think,
As we work in a sink
Of lechery, drink and disaster ;
We'd be degraded too,
But we're ladies through and through.
You may be sure
Our morals are pure ;
We're kept in check by the Master,
We're his apostles, he is our ideal.

Cramsome.
Verse—
I'm Cramsome, the pædiatrician ;
I'm decent, I'm British, I'm white.
As an honest God-fearing physician
I don't think your methods quite right.
I object to this probing and prying
Into past sins and personal shame ;
I object to this poking and spying—
Play the game, boys and girls, play the game !

Chorus—
You must keep a grip, play the game,
Or a stiff upper lip, play the game.
For games and sublimation have made the British nation ;
Play the game, sons of Guy's, play the game !

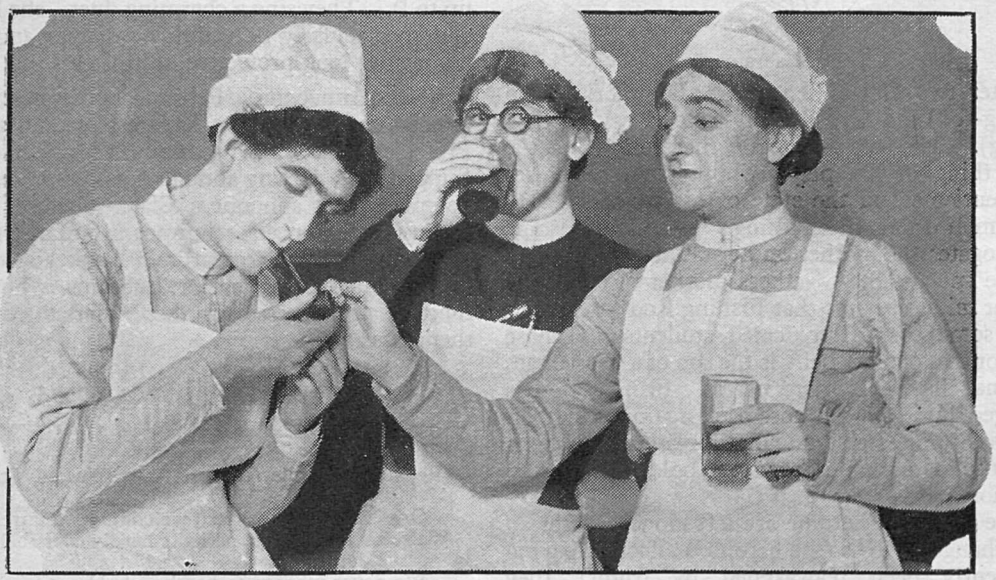
Social Workers.
2nd Verse—
The drunken and psychotic,
The sinners and perverse,
We ply with pregnant questions,
And we always think the worst.
We are the Inquisition,
We're a female Black and Tan,
We're hospital storm troopers,
We're Suppressme's Klu Klux Klan.

Chorus—
We've much enjoyed the writings of Freud,
We relish a spot of libido,
We like the social strife,
The seamy side of life.
So we never shirk
Our missionary work ;
We are inspired by our Master,
We're his Crusaders, he is our Ideal.

Cramsome.
Second Verse—
If the little one has halitosis
And all other treatment you've tried,
You must come for correct diagnosis
To Cramsome, the hope of the side.
I'll have no truck with complexes,
I think that's the act of a spy ;
I'll swear not to mention the sexes,
So at least with a straight bat he'll die.

Chorus—
You must keep it clean, play the game,
With mental hygiene, play the game.
It's whitewash and distemper have made the British Empire ;
Play the game, sons of Guy's, play the game.

And furthermore—
Respectable opinions have kept us our Dominions ;
Play the game, sons of Guy's, play the game.



Hector Cameron's performace as Cramsome will long be remembered. He deserves every credit for the way in which his tiny galvanic personality dominates the play. He trembles, he explodes with his intensity, and we hope the real Cramsome will take this as a tribute to his own tirelessness and vitality.

Suppressme and Cramsome await their patients. The former sits languidly behind his female bodyguard; the latter, supported by the hero and heroine, rants against charlatanism and chicanery.

Enter Blatant, bellowing, and advances with awful mien upon the suave Suppressme. But suddenly his voice leaves him. Annabella is at her magic again, and from her hiding-place behind the screen has struck him dumb. Impotently he mouths, splutters and gesticulates until Annabella releases his tongue (synchronised with suitable witchcraft from Suppressme, who mutters, "Abracadabra," "Puir sleekit, cowerin', timorous beastie," etc.), and then retires in haste.

Dr. Labrams

Enter two Out-Patients, Mr. U. Phoria (with fishing-rod) and Mrs. Russell Howard (with yellow young). The cross-dialogue that follows is the best thing in the play. Suppressme catechises the gentlemen on the state of his psyche—"Do you smell drains or anything?"—and Cramsome interrogates the mother on her child's complexion ("We must fight together, mother"). Neither master mind fathoms that Fishing Rod's delusions have some basis (intoxicated students *did* chase him) or that Yellow Belly is the son of a Chinaman.

Annabella wants more magic. Fishing Rod is changed into a snake and back again. He then chases Suppressme and his screaming minions from the room, while Cramsome boldly brandishes a Union Jack.

The hero and heroine are left alone. After an interchange of vows (the heroine's affection having apparently been reawakened by fright), they remove the screen and Annabella is revealed knitting demurely.

Primarily in order to help the lovers to wealth and fame, but also to gratify her own long-cherished desire, Annabella discloses to them her plan. Beginning at the Combined Round that afternoon, she proposes, with the help of her lamp, now that its magic powers are established, to transform the Residents into the Staff—and *vice versa*.

A Wimp

ACT II, SCENE 1

The scene is set for the Combined Round. Enter the hero and heroine, and there is some clasping (how nice to have a woman one can look up to !). They sing a charming duet—she languid and spectacularly beautiful, he dapper and doing his best to look protective on tip-toe.

Enter Annabella. Felix is to broadcast the famous meeting. To a fanfare of trumpets enter Professor Pickleson (Cope), in rubber apron. Suppressme, dreamy and aloof, and a premonitory booming (off) announces Blatant before he and Cramsome enter. A triumphant fanfare of trumpets, and enter the great man Burst, followed by his acolyte, the fragrant Dr. Labrams. The many tongues are silent and the "stars" introduce themselves.

COMBINED ROUND SONG

(Act II, Scene 1)

Chorus—

We are the collected, carefully selected Staff performers of the show,
On this stage so versed, we come here unrehearsed,
We're so very clever, patients hardly ever realise what we don't know;
We never manage to bamboozle Hurst.

Verses.
Cramsome—

At Out-Patients daily I work without stop,
The all-round Physician.
I never complain and I'll work till I drop ;
I think I've a mission.

Pickleson—

With my schoolgirl complexion, the name of Old Nick
I think's a misnomer.
I daily grow younger, and if sometimes I'm sick,
Blame my atheroma.

Chorus—We are the collected, etc.

Blatant—

I'm the founthead of reason, the essence of tact,
I'm just a placebo ;
But if ever I make up my mind to a fact
I jolly well say so.

Suppressme—

I hope you won't think from my nonchalant air
Things don't interest me ;
But if ever the duchess gets straw in her hair,
Pray send for Suppressme.

Chorus—We are the collected, etc.

Labrams—

I'm Adolfe Labrams, for knowledge my thirst
Here weekly is whetted ;
For my kindly reception as Boswell to Burst
I'm deeply indebted.

Burst—

I think you'll agree I'm the pick of the bunch,
They're merely a quorum.
Whatever their views are, if I get a hunch,
I simply ignore 'em.

Dr. Burst then unfortunately asks to see a patient who has failed to survive treatment, and broadcasting has to be hurriedly switched off (a few moments' light music), while " technical details " are discussed. A new patient is wheeled in and Burst fumbles underneath some nightwear. He finds a tumour in the left hypochondrium—square five—and suddenly a mighty roar of engines and Dontwait (who could have guessed ?) descends from his aeroplane after a perfect landing. During a quarrel over the diagnosis he enters and grabs the microphone and advises listeners of his presence before anyone can compete with him. This is the edifying moment which Annabella chooses. The usual clash of cymbals, the gorgeous figure of the Djinn—and black-out.

Outside the Superintendent's Office the awful truth comes home to the Staff. They have been changed into their own house officers. Blatant is charged 3*d*. for leaving his car in the Quadrangle, Burst is not allowed to take his hat and coat, and Suppressme announces that his intelligence quotient has risen sensibly.

Even their faithful Labrams does not recognise them. Felix, resplendently Harley Street, stalks proudly by the weeping Glioma and refuses to take her out that night. Followed resentfully by the bewildered Burst (" mass hysteria "), now a cowed H.P., he leaves the Staff dallying with a coy bevy of nurses. Blatant alone loves the change, and characteristically leads the whole house in " Back in the Student Days " :—

(Act II, Scene 2)

Blatant and the Nurses.
Nurse—

You must realise that when I came to Guy's
Surgeons were respected,
They were demi-gods to our admiring eyes,
Deference was expected.
On the other hand
A student's life was grand ;
We were College Cads,
Plenty of time for women and wine—
We were lads !

Chorus—

In the good old student days,
Our adolescent ways
Girls found adorable.
We were deplorable,
Back in the era of antimacassars and stays.

We were burning our boats,
Busy sowing wild oats.
Life was spent in a nebulous haze,
Back in the student da-ays,
Back in the student days.

Verse—

Now without a doubt, it's t'other way about,
Surgeons take their pleasure ;
Dignity and gravity they do without,
They enjoy their leisure.
Students, I'm afraid, are getting much too staid,
They have no *esprit*,
Everyone crams and passes exams—
Not so, me !

Cramsome enters : " It's terrible to see you here wasting time romping with a lot of tomboys," but they laugh and leave him, and he is left alone with the deserted and weeping Glioma. She tells him the whole story, and they conspire to wrest the lamp from its owner. Enter Annabella—all seems easy.

But Annabella, oh, unhappy fate, has lost her lamp !

ACT III

For three long weeks the Staff has lived like house officers, all wretched except the skittish Blatant. The curtain rises on the day of their release. Four Wimps, daughters of the Staff—Euthanasia (Baxter), Vespasia (Morton Palmer), Sophonisba (Evans), Arethusa (Davies)—are arranging a rummage sale for the Ladies' Association in the Park.

(Act III)

Chorus of Wimps—

1st Verse—

We are little Wimps, daughters of the Staff at Guy's—
We're well advised.
Though we may look simple, we're very worldly wise—
You'd be surprised.
Though our motto's,
" Never let father down,"
We gad around the town—Gay and sporty,
Blasé, naughty.
Every woman knows, life has got its serious side—
Can't be denied.
Selling father's clothes, damps a not unnatural pride—
They're rather wide.
We forego our hey-days
To emulate the Ladies'
Association of Guy's.
That is what we seek,
The highest Social Peak
At Guy's.

2nd Verse—

Father often quotes, the conduct of the Staff at Guy's—
We sympathise.
Endless anecdotes we listen to with due surprise—
He never lies.
Though we're play-girls,
Living a life of ease,
Spending dear father's fees—Coy and hearty,
Naive and arty;
Though we seek romance, and we're social debutantes
—Don't look askance.
Selling father's pants, stops our being sycophants—
Not one recants.

We forego our hey-days, etc.

Cramsome and Pickleson enter with gifts for the sale to be put on the stall: aspidistras and a moose's head. They are some of the decorations from the College which the deposed professor could stand not a moment longer. Blatant and Suppressme cross the stage in their squash clothes, and two of the Wimps go off to watch them. A third goes off with the erstwhile professor to see his collection of beetles, to which, since his residence in the College, he has been able to add considerably. Cramsome and Glioma find themselves alone but for one remaining Wimp. Cramsome is desperate, and must be changed back (" I have had phthisis seven times already "), and, as they confer together, Glioma in tears at having lost Felix Mas now that he is Burst, for power has swollen his head, they suddenly see the lamp on

The Good Old Student Days

the stall. Cramsome makes for it. But no, the Wimp bravely stands her ground; everything on the stall is for auction. Cramsome will buy it, he says, even if he has to embezzle the Residents' Fund.

Suppressme and Blatant having fallen out over their game of squash, re-enter, and at Cramsome's instigation they hold an extraordinary emergency sub-committee meeting, and Cramsome is elected Treasurer to the Residents' Fund. But when he finds out the reason Blatant is furious. He's only young twice, he doesn't want to be changed back; he withdraws his vote. But Cramsome votes for himself, and runs for the cashbox. Blatant determines to bid against him, and indeed he is a wealthy man, for there have been so many inquests on the Surgery. Felix enters, and Glioma rouses him to jealousy by flirting with Blatant.

(Act III)

TRIANGULAR SONG

Felix—

Your behaviour's unkind.

Verse—

Have you altered your mind?
It is hurting
To see you flirting.
You're getting out of hand;
Faithlessness I will not stand.

Glioma—

Love is a treasure that money never buys.
The joys of vanity are empty lies.
Wealth and position no longer appeal,
Only humble love is real.
Since you have risen your pride has increased;
Your old attentions have almost ceased,
Of your attentions no longer I'm sure
Residential love is pure.

Felix—

Darling, my plans you're upsetting,
I still am thine,
I've had no time to be petting,
I've had so many important things to do.
With this impostor you'll go from bad to worse;
You will become a "linen-cupboard nurse."
This folly you will regret;
For I intend to be persistent,
My claims will be insistent—
I'll marry you yet!

Blatant—

Kindly tell him to go,
Why not alter your beau?
It's a duty

Little Wimps

To worship beauty.
Neglecting it's a crime.
I'll make up for lost time.

This news I find very jolly.
Let joy abound ;
I'll banish your melancholy,
For I'm a king at kicking the gong around.
My boyish manner your charms will enhance,
You'll be astonished when you see me dance.
But as your love-sick boy,
I'll give enjoyment without ending,
The mischief I'm intending
To do never will cloy.

The auction starts, and they bid frenziedly. Blatant is the richer, and Cramsome has to send Pickleson post haste to the pawnbroker with his enormous Albert. Blatant has practically won the lamp, when Pickleson returns, wildly dishevelled, in the Nick of time. Even then Cramsome is not saved. They are beaten by a penny, so niggardly was the pawnbroker. Glioma chooses this moment to flirt with Blatant again. (She has already infuriated the hero by making him jealous as she makes advances to this new rival.) The hero takes a look at the pair, and the auction is just done, and the lamp is almost Blatant's when he decides.

" Glioma, you are worth all the world and more to me ; here is twopence." He gives it to Cramsome, who wins, and to the mortification of the would-be ever-youthful Blatant, they are to be changed back. *Débacle*. The lamp does not work !

As Cramsome is being lynched for a swindler by his disappointed colleagues, and Blatant laughs derisively, Annabella enters. She had it all the time, but Cramsome's threats and violence had terrified her into subterfuge. But now the poor dears have learned their lesson. Love and joy abound and the Djinn is freed as Annabella thinks she has had magic enough. Wedding bells, Felix and Glioma in embrace, final chorus. Curtain.

C. A. C.

The Residents' Play, like Johnnie Walker, is still going strong, and so we have this year's play, complete with two entirely new authors, and once again with original music specially composed by a Guy's man, and acted by an entirely fresh set of residents—a play up to the standard of previous years, both as regards the acting and producing. The dialogue and lyrics were lively and occasionally scintillating, and some of the character studies so skilfully and faithfully drawn from real life that they must have generated just a little heat under the collars of the originals. Baker and Partridge are masters of lyric and dialogue.

But I must mention the plot. Now in designing a plot for a Residents' Play there are one or two things to remember. The first, which need hardly be actively remembered because it makes itself so painfully and continuously obvious—is that it is a very difficult thing to design a plot at all. The second is that, unless the plot is very, *very* simple, no one in the audience will understand it. The third is that every fresh complication in the plot has to be explained to the audience, not once nor twice, but three or four times, and that the usual method of explaining " plot " to the audience is for two of the actors to take two paces down stage and to engage in a prolonged and rather clumsy dialogue, which may or may not succeed in its object, but which certainly slows up the tempo of the play. There is another method of " getting over plot," and that is by means of rhymed couplets, which are tedious to write and extremely difficult for an amateur actor to proclaim. Now the plot of Baker and Partridge did not claim to be original ; that, of course, doesn't matter in the very slightest. There are only three original plots in existence, and every variation of each of them has been employed time without number, but it was complicated—I don't say unnecessarily complicated—but, all the same, complicated.

There was yet another important point in stagecraft which, I think, was not sufficiently realised in this play, and that was the extreme importance of a good " curtain." Action during a scene does not matter nearly so much, so long as one works up to a climax, and rings the curtain down on that climax, and not on a subsequent anti-climax. Let me illustrate what I mean.

At the end of Act II, Scene 1, the Combined Round scene, the action quickens and rises to a *crescendo*, with each member of the Staff fighting for a place at the microphone—an excellent crowd effect, reminiscent of Borrah Minewitch, on which the producer is to be congratulated. Above the hubbub the heroine's clear voice—I wished sometimes it had been a little clearer—was heard to shout : " Rub it, rub it ! " Annabella rubs the lamp, and—Black-out ! A good, excellent, dramatic curtain. But no, the voice of the Resident Djinn so lately housed in the body of Labrams begins to declaim his smooth and sonorous rhyming couplets. Eventually he stops, the lights go on with a click, and there are the Staff dressed in white coats.

I hope the authors will forgive my elaborating these two points, " plot " and " curtains," at such length. They are, as far as I can see, the only two points on which they could be criticised in a witty and well-balanced libretto.

I welcomed Oliver Ive's return to Residents' Play composition. There were rather fewer

musical numbers than in recent years, which I think, on the whole, was a pity. The " Good Old Student Days " was far and away the most popular song in the play, and it was a real triumph, in which Forbes shared. He certainly put it across with a swing, to persuade the audience to join in the chorus. I was very impressed by the " triangular song " (Felix Mas, Glioma and Blatant) in the last act. In this Dickinson disclosed a pleasing, if rather delicate, voice. The four little nurses at the beginning of the second scene had to watch the tempo rather carefully, otherwise that song might have developed into a most mournful dirge. The song of the Resident Djinn I felt might have been made rather more of. There was too much movement, too much stalking, so that the unfortunate Hamilton, who has, if left to himself, a very nice voice, was rendered rather inarticulate. This was very unfair, for it was the only song he was given to sing. But the music was delightful. It was a pity it was not recorded, as the music of de Gruchy has been. Ive has a style of his own—a pleasing, light, melodious style which is always welcome, though I should think it is difficult to write lyrics to. As for Charles de Gruchy, his effort was more than noble. I understand he sacrificed a fortnight's " locum " in order to help the Residents. He came into rehearsal almost literally at the last moment, picked up the tunes in a miraculously short space of time, and was a great comfort to the actors in his sympathetic accompaniment, following them easily through the involuntary and sometimes surprising changes of key, keeping abreast with them in time, however late or early they decided to come in on verse or chorus.

And, finally, with regard to the producing and acting. The thing that always strikes one about the Residents' Play is that, with absolutely no choice of material, it always succeeds in avoiding the horribly amateur. The actors very seldom forget their parts, and it is very rare that any major catastrophe occurs on the stage such as one of the side flats falling over. The changes of scene were slick, and here the stage manager and his assistants really deserve great praise. They worked swiftly and silently back-stage.

With regard to the production, we have learned to expect fairly smooth running, and there is no doubt that Bishop's previous experience in producing was a great help in this play. But there are three factors responsible for the successful production of a play—the producer, the actors, and the audience, and I would like to say just a few words here about " the Miracle of the Audience." I saw this play in rehearsal from time to time, and it looked terrible. I would have been prepared to take a fairly considerable bet that it would be a complete failure, and then I saw it acted before an audience and it was an entirely different production. So the producer and the actors cannot claim all the credit of the success of this play; a very large amount belongs to the audience, and what an appreciative audience !

There are just one or two details of the production I should like to call attention to. I thought that, owing to the back-stage noises overpowering the down-stage dialogue, the shower bath scene was rather ragged, and it wasn't until the beginning of the second scene that the play got a grip of itself. The real water in the shower bath was a masterpiece of ingenuity, in which I detected the inventive mind of Humby. In the Out-Patient scene the rather involved change of the euphoric patient to the snake and back again and his attack on Dr. Suppressme (affectionately known back-stage, I believe, as the Shambles) was taken much too quickly. It was not too easy to understand anyhow, but had it been taken in definite phases, it would have looked less like an exuberant charade.

In the auction scene at the end there was too much bunching; I know it is difficult to get the entire cast on so small a stage, but they would have been more effective if they had been distributed more evenly in échelon formation round the table.

With regard to the choreography. Bishop was probably wise in choosing the very simplest of steps, but there was a great deal of repetition, and they did rather tend to become monotonous. It is unnecessary to have your actors moving all the time as soon as they burst into song, and no harm would have been done in keeping them still occasionally. I liked the simple step for the Combined Round song—it fitted the music very neatly.

And, finally, to turn to the acting. I would personally give the laurels to Cameron. He had by far the longest part in the play, and it was a character part. Furthermore, facially he does not in the least resemble the original of his part, nor in speech—an occasional lapse into a Scotch brogue was inevitable. He overcame these difficulties, however, very nobly. He looked every minute as though he were enjoying it; he never over-acted, and he managed to convey an air of intellectual self-confidence combined with serious kindliness and sly cunning. Next I would put Forbes, who was just as good as Cameron, but in a much easier part. He was a little inclined to over-act occasionally, but it was usually necessary as he sometimes had to do the work of others as well as his own. His " Good Old Student Days " was an object lesson in how to put a good number

across. Both he and Cameron as well as Morton-Palmer and Cope were excellent in the Auction Scene, which depended entirely on being prompt on the cues.

Third I would place Elliott as Sister Annabella, whose declamation of the rhyming couplets was excellent. He was purely and simply a purveyor of plot, a very difficult and unexciting task, and yet he did it pleasingly and effectively.

Ponder made a life-like Suppressme, and was just as good an actor when he was saying " Rhubarb, rhubarb," up-stage as when he was characterising down-stage. (By the way, the producers' crowd noises effect of " Rhubarb, rhubarb, Mrs. Patrick Campbell," was painfully clearly articulated. He might have varied it occasionally with " Well rowed, Oxford " !)

H. A. Hamilton was a most faithful caricature as Labrams, a part on which he is to be heartily congratulated, and, as I have already said, I think the producer is to blame that he was not better as the Resident Djinn. He is to be congratulated on combining the mysteries of the East with a real bit of Old London.

Cope was very noble to let himself be drenched with icy water in the shower bath, and gave a life-like (or should we say death-like ?) imitation of Professor Nicholson.

Keats looked very like Dr. Hurst, but was better in the part of the " Under-dog " than in the Combined Round scene. He did not, perhaps, quite succeed in conveying that completely overpowering personality.

Boucher, as hero, had a very unenviable part. He looked to me the whole way through as though he disliked the heroine intensely, and I could never imagine her having " nestled " in his arms. As the broadcast commentator, however, he was superb, and his " Glioma, you mean all the world and more to me—here's twopence," was one of the high spots of the play.

Dickinson was one of the most alluring heroines I have seen for many years. He did not, perhaps, however make the best of *her* good looks, and might have been a little more coy. I felt he was labouring under an inferiority complex. If he had thought himself as good as I considered him to be, I think he would have been better still. In other words, he didn't really let himself go.

Of the nurses, Harris was the best. His vivacity, combined with his American wisecracks, contributed greatly to the success of the nurses' dialogue.

Giesen had a very difficult part as the mad patient, which I think he did exceedingly well, in a Harpo Marxian manner ; as Dr. Dontwait he bore a striking resemblance to our flying physician.

Baxter and Davies reminded me of two of Epstein statues in the Wimps' song, but they succeeded in being surprisingly coy later on. Baxter's attitude as the social worker was, I thought, just perfect.

F. M. P. A.

Correspondence

The Clubs' Union Subscription and the College

To the Editor of the GAZETTE

SIR,—I must take exception to the opening paragraph of your " Passim " in the *Gazette* dated 29th February, 1936.

A rapid reader would gather that the student who pays five guineas a year to the Clubs' Union does not get value for money. May I say at the outset that it has always been, and still is, the fervent hope of the Clubs' Union Council that the day will come when the subscription will be reduced? May I at the same time ask you, Sir, if you can point to any institution in London that gives anything like the same facilities for the same subscription ? If you know of one I shall be glad to hear of it, so that I may investigate its running methods.

The Clubs' Union gives the student immediate membership of nineteen clubs and societies, in addition to the *Gazette* and the Students' Club. Every year new clubs are asking for recognition, which sometimes has to be refused on financial grounds. The Pavilion, Stand and ground at Honor Oak Park should be objects of joy and pride to all Guy's men, and cannot be rivalled for ease of access from the Hospital. You will know how much has been spent here to give every facility for healthy recreation, and further large sums have been voted for resurfacing the tennis courts and draining the new ground at a recent meeting. There must be very few who do not make use of these facilities.

The Students' Club is but one of the many constituent institutions run by its own committee, and during my eight years as secretary of the Clubs' Union, I cannot remember any request for financial assistance that has been refused. The annual budget of the Students' Club is three times as large as that of any other constituent institution. It can hardly be said to have been neglected.

Any past secretary of the Students' Club will tell you that it is with the greatest difficulty that any student can be made to take the *slightest*

interest in the Club, and that the attendance at the general meeting can usually be counted on the fingers of one hand. It would seem that the students themselves have until recently taken no steps to approach the right authorities.

Finally, I should like to make it clear that the Students' Club and through it the Clubs' Union has up to the present had nothing whatever to do with provision of sleeping accommodation for students, and has been in the position of having to accept such accommodation as was available for its Club Rooms.

Every Guy's man will agree that newer premises are urgently needed both for students and residents, and it is to be hoped that any appeal towards this end will meet with the generous support of all.

Yours, etc.,

N. ECKHOFF,

Hon. Sec., Clubs' Union,
1927-35.

Guy's Hospital,
S.E.1.

(***It was our last intention to cast any aspersion on the Clubs' Union. We remark on this in "Passim."—*Ed.*)

The College

To the Editor of the GAZETTE

SIR,—As a preliminary to any consideration of rebuilding the College there should first of all be an expert investigation of the whole of the financial aspect of the matter. There must be some one of our Court of Governors who could help us with expert advice.

To some of us it appears that the finances of the College and the Club are very complicated. What with rents payable to the Hospital, sums due from the Hospital for the accommodation and maintenance of residents, and the upkeep of the ground at Honor Oak Park, are we quite satisfied that the available funds are being employed to the best advantage? Are the catering arrangements the most advantageous from a commercial point of view? Considering the total number of Guy's men and the proportion of these who use the sports ground at Honor Oak, is the allocation of funds to this ground and to the constituent clubs of the Union equitable?

I venture to think that if the club accommodation at the College received consideration as favourable as is given to Honor Oak Park, matters might be made much more comfortable.

Yours, etc.,

"ACID HÆMATIN."

To the Editor of the GAZETTE

SIR,—The letter of "Carfax" which started your correspondence on the College is sound, but for its conclusion; he mentions the raising of a fund, finishing with an allusion (*horresco referens*!) to "half-crowns" and the Milk Churn.

To connect such an emblem as the Churn, with all its implications both to Guy's men and outsiders, with what is, after all, merely a scheme for the improvement of our own comfort, necessary though that may be, is a profound error in psychology.

To those from whom we collect, as well as to those of us who do the collecting, such phenomena as jingling buckets, white-coated students, the general hilarious enthusiasm with which we descend on London to appropriate some of its wealth, are inevitably associated with an appeal on behalf of one of the world's finest voluntary hospitals, that its work may not be hampered for lack of funds.

The entire atmosphere of what is from many aspects a highly enjoyable rag as well as a useful work, an atmosphere which makes Guy's students' collection utterly different from all other collections for charity, depends mainly upon the undeniable excellence of the cause.

We do not always abide strictly by the "rules for collectors," but the crowded cars, the insistent yells, the persistence with which we pursue our prey, are amusing to Londoners, who smile and pay up because we are Guy's students collecting for Guy's.

At all costs we must avoid jeopardising our position with "our public" by attempting to make use of any of those valuable collecting associations, of which the Churn is, perhaps, symbolical, to raise a fund for an object of infinitely less general worth or appeal.

Any half-crown finding its way into the Churn or any other Guy's collecting receptacle belongs to only one institution—the Hospital itself.

Yours, etc.,

D. STAFFORD-CLARK.

The Old Summer House,
Burnt Ash Lane,
Bromley, Kent.

(***It is, of course, unthinkable that we should use such hospital collection methods in order to raise money from the public for ourselves, nor can we think that "Carfax" entertained any such idea in his casual allusion to the Churn.—*Ed.*)

Ulcerative Colitis—What is it?

To the Editor of the GAZETTE

SIR,—The earliest description of sporadic ulcerative colitis as it occurs in England was given in 1875 by a Guy's man, Sir Samuel Wilks, who regarded it as indistinguishable from tropical dysentery. In the *Guy's Hospital Reports* for July, 1935, there is a long paper on ulcerative colitis, which contains a good deal of evidence supporting the belief that the disease is a form of bacillary dysentery. Dr. H. M. S. Turner's suggestion of the dysenteric nature of ulcerative colitis is therefore not a novel one at Guy's, where this view has been widely—though perhaps not universally—held for the last fifteen years. His note on the subject in the *Gazette* of February 15th is none the less welcome, as it gives additional epidemiological evidence in support of the theory.

Dr. Turner says that the only form of dysentery which assumes epidemic form is bacillary dysentery. But no member of the Mediterranean Expeditionary Force of 1915 is likely to forget the epidemic of amœbic dysentery, which was the main cause of the failure of the Gallipoli campaign. A large proportion of the thousand sick men who were daily evacuated from the Peninsula in July, August and September of 1915 were suffering from amœbic dysentery, bacillary dysentery having become comparatively rare after June.

Yours, etc.,

ARTHUR F. HURST.

P.S.—I wonder whether Dr. Turner has ever seen a case of tuberculous or syphilitic ulcerative colitis, both of which he mentions in his paper. The former possibly exists, but is very rare; I have never seen or heard of the latter.

Rugby Fives Club

To the Editor of the GAZETTE

SIR,—May I use some of your valuable space to mention that as the outcome of Dr. Neustatter's letter in the *Gazette* for 23rd November, 1935, a Rugby Fives Club has been formed in the Hospital. This was made possible by the encouraging support received when a meeting was held for the purpose of inaugurating such a club.

Anyone who is not aware of this and would care to join will be very welcome, and should communicate with me. Several matches have been arranged against other clubs this year.

Yours, etc.,

O. E. LANE,
Hon. Secretary.

Guy's Hospital, S.E.1.

Associated Ocular and Oral Disease

To the Editor of the GAZETTE

SIR,—I was interested to read in the February 1st and subsequent numbers of the *Gazette* Mr. Law's remarks on the paper by Mr. F. S. Krusin.

I think his first letter was fully justified and calculated to serve a useful purpose, and I was surprised to read the adverse and capricious comments made upon it. Surely Mr. Law is right in trying to protect the non-ophthalmological reader from the very controversial and inaccurate matter contained in the article. Mr. Law is evidently an enthusiast, and the accurate teaching of his special subject, and I think that most ophthalmologists of experience would agree with his considered and, to me, temperate criticism of the paper under discussion.

Yours, etc.,

S. H. BROWNING.

22, Harley Street, W.1.

Sport

Rugby

Guy's v. Old Whitgiftians

GUY'S visited the Old Whitgiftians at Croydon on Saturday, February 22nd, and were surprisingly beaten by 2 placed goals and a try (13 points) to nil.

Heavy rain during the morning had made the pitch very treacherous and the conditions were far from ideal. The result came as a surprise to many Guy's supporters, but the Old Boys have been playing so well this season that their record proves that they are a side above the average. They also had the advantage of knowing the ground, which has a definite slope on one side of the field and a gradient between the goal-posts.

However, the Old Whitgiftians fully deserved their success, in spite of the fact that they were repeatedly beaten for possession in the set scrums. They made full use of the opportunities that came their way, and with the Hospital back division sadly at fault, they scored on each occasion an

opening presented itself. The Hospital forwards played a remarkably fine game from start to finish, but the back row forwards allowed Skeen far too much rope on the open side of the set scrums.

Almost every scrum that was taken resulted in Guy's securing the ball, and the heeling was so clean and quick that the backs had enough chances to score time after time, but somehow or other they appeared uncertain of their movements and many opportunities were frittered away. The Old Boys played a grand tackling and spoiling game, and were on top of the threes before they had time to think. However, many fine passing movements were carried out without much progress being made; here again the backs were too prone to run across the field, and in this respect Stewart was a great offender. Allen and Stanyon-Jaques worked very hard at half-back, and one fine movement early in the first half might easily have altered the whole course of the game. The two halves worked the ball well down the field and then set the threes in action; the ball was passed with accuracy to the left wing, and Douglas raced along the line and looked certain to score a try. However, when tackled by the full-back he put a foot into touch with only five yards to go. Whitgift relieved after several scrums and, following a break-through by Skeen, Nicholson caught the Hospital on the wrong foot and sailed in for a try, which Harrison converted. This was all against the run of play.

The effort undoubtedly gave the Old Boys the stimulus they required, and, with the Hospital defence showing its weaknesses, Harrison broke through with the ball at his feet, kicked over the line, and just beat Halamandres for the touch-down. Dubois kicked between the posts, but one of the Hospital defenders touched the ball in flight and the goal points were disallowed.

Before the interval the Old Boys actually crossed the line again for a try which appeared to be perfectly legitimate, but the referee ruled that the ball had been knocked on in the effort and thus Guy's had a lucky escape.

After this Guy's exerted great pressure, but they were unable to pierce a sound defence.

In the second half, Birks was brought into the centre, and this change appeared to infuse greater life into the backs. However, they had a hard task as they had to fight up-hill, and the heavy going made it difficult to make progress at any speed.

For some minutes, the Old Whitgiftians were pinned in their 25, and it appeared as though Guy's would score any moment. Unfortunately, things would not go right, and on the goal line Guy's were penalised and sent back to mid-field.

Following some good kicking to touch, Whitgift eventually secured a footing in the Hospital 25 and Skene, breaking away quickly from a line-out, hurled himself over for another try, which Harrison converted with a good kick.

After this the Hospital forwards tried everything they knew to find an opening, and kept the home side on the defensive, but in their anxiety to cross the line, a knock-on or a forward pass held them up.

On two occasions Kark came near with penalty kicks, but the Old Boys refused to be bustled and held their line intact until the whistle sounded for no side.

Team.—C. Halamandres; P. H. Birks, I. McD. G. Stewart, J. van A. Steytler, D. M. Douglas; R. D. Allen, K. A. Stanyon-Jaques; M. R. Kark, E. S. Nicholson, H. H. Crabb, E. R. Davies, E. B. French, C. S. Darke (Captain), P. Fletcher, R. O. Yerbury.

Ice Hockey

IN the first Inter-Hospitals Ice Hockey match held at the Empress Stadium, Earl's Court, on 18th February, St. Thomas's beat Guy's by 3 to 2.

There were two periods of twenty minutes each. Right away from the face-off Guy's went hard at it, with Simms prominent in the attack. Good checking-back and the extraordinary way in which the St. Thomas's goal-minder managed to stop Simms's extremely accurate shots at goal prevented Guy's from scoring.

Half-way through the first period, Moseley, whose dashes up the ice were always dangerous, sent a fast puck into the Guy's goal, which was well saved by Watson, but De Wardner immediately sent it back into the goal net, giving St. Thomas's their first goal.

Not long after this Johnson scored again for St. Thomas's with a long-range shot. Play was then fairly even until just before the end of the first period, when Creighton scored St. Thomas's third goal from a pass by De Wardner.

Shortly after the start of the second period Simms opened the scoring for Guy's, which provided the necessary stimulus for a stronger attack. Praat was unlucky not to score with a shot which rebounded off the goal-post.

After a period of rather scrappy play, Macdonald scored a second goal for Guy's. From this point until the end Guy's kept up a constant attack, with hopes of equalising, but the St. Thomas's defence was too good for them to be realised.

Team.—E. P. O. Watson (goal-minder); F. E. Pitt-Payne, A. D. Macdonald, T. N. Praat, R. J. Simms, J. G. Hancock, (W. J. Head, J. B. Gayes, I. W. Ross). *Referee.*—D. G. Farrelly.

Cross-Country Club

THE fiftieth inter-hospitals' race for the "Kent-Hughes" Cup was run at Coulsdon on Wednesday, March 4th, over a difficult six miles' course.

The Guy's team won easily, scoring only 27 points against the 47 points of London, who were second. The Cup was last won by the Hospital in 1925.

A. E. J. Etheridge won the race easily for the third year in succession. G. W. Taylor did well to finish fourth. E. J. Hinde, D. J. Lyon, C. E. Solomon and G. Henry completed the team, all of whom finished in the first twelve.

Solomon ran a very fine race to finish eighth despite a leg injury.

D. J. L.

Hospital Information, etc.

Pass List

ROYAL COLLEGE OF SURGEONS.
L.D.S.
February, 1936.

Dental Mechanics and Dental Metallurgy.

T. P. Bromley
G. F. Daws
F. J. Edgell
R. L. Greenfield
R. W. Harvey
L. James
M. R. C. Kemp
J. R. Kempe-Roberts
E. G. Miron
R. D. Ogston
W. S. Palin
R. C. Price
L. J. Price
L. A. Quick
H. Rees
D. G. Sharp
M. Shaw
W. B. B. Southwell
P. D. Spooner
D. D. Stalford
J. W. Truscott
C. W. Turner
G. M. Turner
E. A. Tweney

Anatomy and Physiology.

O. B. Balean
I. O. Enos
J. B. Gayes
M. R. C. Kemp
M. Malleson
P. S. Marshall
A. Middleton
L. G. Morey
W. S. Palin
G. G. G. Rees
R. K. Roberts
A. J. Rogers
F. W. Rushby
R. S. Stevens
G. M. Turner
E. A. Tweney
H. Walker-Smith

Special Anatomy and Physiology.

R. A. Abbey
E. Allen
R. G. Bird
W. H. Bransom
C. F. H. Bulow
N. F. Clarke
E. P. Cutler
H. D. Freeman
D. C. Jackson
L. J. Moir
P. B. Myers
R. D. Pett
D. L. Power
R. C. Price
B. T. C. Probert
A. Rand
D. J. R. Shannan
C. E. Solomon
D. D. Stalford
E. D. Stanhope
J. Symmons

OLD REGULATIONS.

Dental Mechanics and Dental Metallurgy.
G. R. Lamont.

Anatomy and Physiology.
E. R. Sheernan.

Special Anatomy and Physiology.

H. J. Lewis
F. McCombie
G. P. L. Taylor
J. F. V. de Villiers

Surgery.

C. Adair
H. M. D. Archibald
F. B. Gamblen
D. C. Howe
F. L. Ingram
G. R. Lamont
T. J. M. Lowry
N. A. McCormick
R. F. Parfitt

Dental Surgery.

C. Adair
N. A. Blay
O. B. Brears
A. O. Chick
D. C. J. Constable
W. F. Cooper
H. F. W. Dornhorst
M. E. Gascoine
W. H. Groom
G. A. B. Hoby
G. R. Lamont
J. L. MacDougall
E. Strasburger
D. K. Toulson

UNIVERSITY OF OXFORD.
BACHELOR OF MEDICINE AND SURGERY.
J. B. C. Murdoch.

Papers by Guy's Men

V. E. Lloyd. Gonadotropic hormones in the treatment of sterility in man. *Lancet*, 1936, i, 474.

G. W. Nicholson. Studies on tumour formation —XVII. An abdominal fœtiform teratoma. *Guy's Hosp. Rep.*, ~~1934~~ 1935, lxxxv, 379.

A. C. Hampson. Cerebro-spinal meningitis with special reference to the treatment of associated hydrocephalus. *Ibid.*, 431.

T. W. Adams. A new study of heat production in man. *Ibid.*, 447.

Maurice Campbell. The St. Cyres lectures on the Ætiology of cardiac arrhythmics. *Ibid.*, 471.

W. E. Turner. The treatment of diverticulitis of the colon. *Medical Press*, 1936, cxcii, 180.

C. S. Lane-Roberts. The treatment of sterility. *Ibid.*, 186.

C. H. Fagge. Jnoh Hunter to John Hilton. *Lancet*, 1936, i, 409.

R. Jarman and A. L. Abel. Intravenous anæsthesia with pentothal sodium. *Lancet*, 1936, i, 422.

H. W. Barber. Lichen planus with herald patches. *Proc. Roy. Soc. Med.*, 1936, xxix, 285 (Sect. Dermat.).

Changes of Address

J. W. Mansie, 112, Harley Street, W.1 (*Welbeck* 1038), and 104, Ormonde Court, Upper Richmond Road, Putney, S.W.15 (*Putney* 1936).

W. R. Kirkpatrick, Gun Carriage Factory, Jubbulpore, C.P., India.

Marriages

PEATFIELD-DURRANT REGESTER—On February 22nd, 1936 at Brighton, Frank H. W. Peatfield, L.D.S.Eng., of The Anchorage, Rustington, Sussex, to Margaret Durrant Regester of South Terrace, Littlehampton.

Births

GREWCOCK.—On March 2nd, 1936, at 44, Wickham Way, Park Langley, Beckenham, to Marjorie, wife of Ronald J. G. Grewcock, L.D.S., R.C.S.—a daughter.

EDS. { P. W. C. / M. A. P.

GUY'S HOSPITAL GAZETTE

A Journal of Medicine, Surgery, Dentistry and Hospital News.

PUBLISHED FORTNIGHTLY.

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PASSIM

THE music goes round and round, and so do the projects of building a new College. The secretary of the Clubs' Union Council has returned from his indisposition, and a meeting has been arranged. We cannot tell anyone anything about it, because it has not been held at the time of going to press. But it will have been held by the time that our next issue appears, and, if we are allowed to inform you of what is said, you shall be informed. It is hoped not only that the project shall be laid before the Governors for their support, but also that ways and means both of securing a site and raising money shall be at least tentatively considered. It would almost seem as though the wheels might shortly follow the way of the music, and that the committee mechanism has started to revolve. May it have all the success that we feel it deserves. We were approached by an expert in venereal diseases this week and asked when we would write anything that was worth reading, instead of fostering a ramp about the College. Well, *pace* the venereologists (a word which we saw in print the other day and which gave us a shudder), we really can't say. It depends upon what is done and when it happens. Everyone is tired of the College, and especially those who live in it, but patience is the greatest of the virtues.

IT is recorded of Goethe that at the age of seven he had religious doubts, occasioned by the earthquake at Lisbon. In somewhat the same way we cannot, without being quite positive about it, escape an occasional lingering doubt—if in so speaking of a great national monument it be not too shocking and sacrilegious to say so—about *The Times*. Indeed, we have often wondered about *The Times* correspondence. We seem to remember, when we were even younger, a correspondence on radium or something of the kind which was perhaps not so well informed as it should have been, and could have been, or were all the authoritative letters published? And was there not again some controversy on twilight sleep? Was not the view raised and fiercely championed that there should not be one law for the rich and so forth, and that hospital patients should have morphia and scopolamine? And was the other side of the matter heard?

But whether or not we are right in these recollections, it has sometimes occurred to us to wonder whether the expression of the educated classes of England is quite so homogeneous as *The Times* from its published correspondence would have us believe. We sometimes speculate as to whether there may not have been some letters received which did not accord so completely with *The Times* policy of the moment. We wonder, in fact, how far does Snell's Law hold with regard to this supposed mirror of informed English opinion? Indeed, we have sometimes felt that to have a letter published in *The Times* one of two conditions must be fulfilled—either that the writer should appear in "Who's Who?" or that the letter should contain the phrase "through the medium of your influential and widely spread paper."

To show one side of a question only may be permissible, however, and who should say that there is any editorial obligation to display the other? But when it comes to making an actual mistake, one feels that acknowledgment might be made. Of blunders in fact *The Times* is, of course, hardly ever guilty; who can remember a case since the Piggott papers in the 'eighties? But last week a fifth leader was published stating that St. George's Hospital "will have the distinction in the near future of being the first general hospital in this country to possess a psychiatric department. . . . Indeed, where St. George's is about to lead others will certainly follow." And then, of course, there were a few titillating witticisms about

dichotomy and trichotomy and so forth, as is the custom in fifth leaders. Well, it left us just breathless. We already knew that St. George's was a well-prepared hospital, since we heard a broadcast by its Treasurer, Lord Greville, who took us on an imaginary tour of the wards, and on reaching the maternity ward told us that here were fourteen beds with fourteen snow-white cots at the foot of each. Amazing!

But we didn't know that they were so progressive as to have beaten us in founding a psychiatric department. Nor, in fact, were they, for our department has been in existence for ten years. Furthermore, ours is a department not only with out-patient but with in-patient accommodation, and is also provided with a child welfare centre. But though a letter was written to *The Times* pointing out this inaccuracy, it was swallowed up somewhere in Printing House Square, nor ever saw the light of day. And the letter fulfilled one at least of the two conditions, for it was signed by no lesser persons than Mr. Eason and Dr. Gillespie, in fact, the Superintendent of the Hospital and Vice-Chancellor of the University of London, and the Physician in charge of the Psychiatric Department. It is true that a letter appeared under Lord Greville's name on the following day generously admitting that there were other psychiatric departments in London with *some* facilities for treating out-patients, but we cannot help feeling that to have published a letter from that hospital which did, in point of fact, "lead where others have followed," would have been a gracious, nor too difficult, gesture.

THE Clinical Appointment will not, as we forecast in our last number, be abolished on April 15th, when the present "Clinicals" retire. It is certain that a further six will be appointed for the ensuing three months before the new scheme of assistant house physicians with the redistribution of the beds on the medical side which is entailed in it, is adopted. No definite date for the abolition of the Clinical appointment has yet been announced.

WE very much regret to announce the deaths of Dr. E. H. Griffin and Dr. R. L. Wason. Dr. Griffin was well known in many parts of the world for his adventures, and notices of his death have already appeared in *The Times* and *Daily Telegraph*. We publish an obituary elsewhere. News of the death of Dr. Wason has reached us as we are on the eve of going to press. He was one of the few members of the older generation who continued to take an interest in the *Gazette*, and for some time past he has contributed to our correspondence columns. Indeed, in sending us his last letter, which appears in this number, he mentioned that he was ill. We much regret the loss of a contributor and supporter, and hope to publish an obituary in our next number.

WE congratulate Mr. J. B. Blaikley on his appointment as Surgeon to Out-Patients at the Chelsea Hospital for Women, and Mr. R. V. Payne on obtaining the M.Ch. of Cambridge and on being appointed Assistant Surgeon to Windsor Hospital.

Obituary

ERNEST HARRISON GRIFFIN

BY the death of Ernest Harrison Griffin, Guy's loses one of her most heroic sons.

Born in 1877, Griffin was early put by his father in the printing works of a newspaper to learn the craft of a compositor, but was almost immediately transferred to the reporting staff. Having fulfilled this condition of his father, he went up to Cambridge, and graduated B.A. in 1898. From there he came to Guy's and took the L.S.A. in 1902.

Then began his adventures, first as medical officer of some mines in Mexico, followed by appointment as surgeon to the Goldfields of Venezuela. In the latter country he was involved in one of their periodic revolutions, and so distinguished himself that he was given the Order of the Liberator of Venezuela. Here took place one of the many instances of his passionate kindness. Noticing a number of captured rebels lying on the ground inside a fort, bound with thongs and demented with thirst and flies, he begged the commandant to free their hands, and was told it was of no importance as they were to be shot at dawn. Changing his tactics he asked the officer if he would dine with him, a request which was readily granted; while thus occupied, he sent down for the sentries sufficient liquor to make them drunk, and then cut the prisoners' bonds so that they escaped.

When the Italo-Turkish War broke out, he was sent out to Tripolitana by the British Red Crescent Society, and by his resourcefulness saved the small ship in which he was crossing the Mediterranean, though all his medical stores were lost. In this campaign he was officially reported as killed, and received the Turkish medal and clasp.

On the outbreak of the Great War he was attached to the Queen's Regiment and the 5th Fusiliers and again reported killed, but the Germans found he still had life in him and sent him to Berlin, where, by the interest of the Turkish Ambassador, he was released. Altogether he was wounded four times and mentioned three times, receiving the M.C. and Bar, and D.S.O. The *Gazette* of November, 1917, said :—

" He established his dressing station well forward during an attack, and went up to the front line through a storm of artillery and machine-gun fire utterly regardless of personal safety. He moved about in the open for 36 hours without food or rest, attending to the wounded, often leading parties of bearers through heavy barrages until every wounded man had been carried back. He remained behind after the battalion was relieved, still searching for wounded under heavy fire, though he was several times badly shaken by the explosion of shells. He set a most inspiring example of courage and devotion to duty."

When Spain laid claim to the Riff, he took a passionate interest in the protests of the Moors, and was intimately associated with, and consulted by, their envoys, having about that time founded the Near and Middle East Association. As a very fine piece of passionate special pleading for the " penetration " afflictions of the " backward " races, one should read his " The Auto-da-Fé in the Riff."

The obituary notices of last week might give the general impression that Griffin loved adventure for its own sake, but the fact is he was actuated by a deeper motive—a passionate urge to defend the weak, to succour the afflicted. Was it glory to be expelled from the Spanish Club by order of the Spanish Ambassador for writing the above-mentioned " Auto-da-Fé " ? No one knows all the countless acts of unselfish mercy he performed, and the same article indicates his anti-war convictions.

Some of his associates thought him eccentric. Many individualists have given a similar impression to the common herd, and no doubt his head injuries were responsible for much latterly, but who ever saw him in a bad temper, or unwilling to listen to another's moan ? Who ever heard him grumble ? The writer never did—and he suffered much for others, because no man had greater love.

W. G. O.

God

By Dr. C. P. B.

AS the House Physician walked down the ward, the patients lying in the beds which he was to visit in the course of his evening round looked at him with half-apprehensive, half-hopeful expectancy. It was the week before Christmas, and the preparations for this festivity had already altered the formal appearance of the ward and were slightly obstructing its usual routine. In three-quarters of an hour he had to rehearse an idiotic music-hall song which he was to sing on Christmas Day. The House Physician was nearing the end of a busy take-in week, and was suffering from lack of sleep. Moreover, being quite unable to sing, he looked forward with ill-humour to the exhibition he had to make of himself at Christmas. He had twenty beds to visit before the rehearsal began.

With a greeting and a short inquiry he quickly passed the first four beds. In the fifth was a man of 48, a printer, who had been admitted five days previously with a nine-months' history of gastric pain, vomiting and loss of weight. He had been seen by the house physician's chief the previous afternoon in the course of a teaching round. The latter thought that, in the light of the history, symptoms, signs and test-meal findings, the diagnosis of cancer of the stomach was almost certain. The X-ray photograph would clinch the matter.

" Good evening, Mr. Rogers," said the House Physician, as he unhooked the patient's report folder from above his bed. " How are you feeling this evening ? "

" Just about the same, thank you, doctor," answered the man. The House Physician opened the folder to see if the X-ray report had come up. Yes, there it was : " Stomach much dilated," it read ; " gross filling defect with irregular edges involving pylorus. Delay in emptying. Strongly suggestive of carcinoma." He closed the folder and returned to the bedside. He saw the man scrutinising him closely. He turned to the head nurse, who was accompanying him, and asked her to get out the plate. More to gain time than anything else he asked the man if he might look over him again. Mechanically he repeated the physical examination he had made when the patient was first admitted. He palpated the lump in the abdomen, confirmed his impression that the liver was enlarged, examined the cervical glands, tapped down the length of the spine. The

nurse came up and told him the plate was ready. He walked down the ward to the illuminated box. There was no doubt about it. The shadow cast by the barium in the dilated stomach was invaded, near the pylorus, by the scalloped outline of the growth. Pensively the House Physician returned to the bedside, intending to say nothing to the patient. But as he was hanging up the folder the man spoke.

"Excuse me, doctor," he said, "but would you do me a great favour?"

"Certainly," replied the House Physician, "if I can."

"Well," said the man, "I don't want to detain you if you are busy just now, but it's like this. I'm a widower, and I lost my son in the war. I've got a daughter, who is everything in the world to me, getting married in February—she's looked after me for the last five years since the wife died—so that I shall soon have no one dependent on me, as you might say. I served for a few months in the war in a hospital, and natural science has always been a hobby." He stopped, and for a moment the House Physician thought he was going to be sick. He made to reach for the porringer on the shelf of his locker, but controlled himself. "I'm sorry, doctor," he continued, "but it catches me sudden, like. Has done for the last six weeks. I don't want to keep you, but it's like this. If it's cancer, will you tell me? I've studied physiology in my spare time, and I've read the symptoms in a book. I know that most doctors won't tell their patient if it's cancer, but believe me, doctor, I'd much sooner know if it is. I'm not afraid of dying. We've all got to die some time, and, barrin' the loss of the wife and of my son, life has treated me fair. If I'm booked to go, I'd much sooner know, as there are some arrangements I want to make about my daughter. She needn't know until the end. So I would be very grateful to you, doctor, if you'd tell me; I would, really."

The House Physician was troubled. He had always avoided telling patients that they had mortal diseases. It was usually so much better to reassure them evasively, explain the facts to the most sensible-looking of the relatives, and leave the decision to tell or not to tell the patient to them. He hedged. "As a matter of fact, Mr. Rogers," he replied, "we don't really know yet; the tests have not shown anything definite."

The patient immediately sensed his embarrassment, and his lack of emphasis. "Doctor," he said appealingly, "please make an exception in my case. You have done all your tests now, and they must show something. I would much rather know the worst than be kept in uncertainty. That is the only favour I shall ask of you. I shan't ask any others."

The House Physician debated in his mind. The man was obviously sincere. And he seemed to be reconciled to the worst. Moreover, the House Physician sympathised with his attitude. In the man's place he would much rather know. He would hate the orthodox lies and dissimulations, with their imputation of cowardice. Again he looked at the man and noted the appealing look in his eyes. "Really I would, doctor," he repeated.

"All right, nurse," said the House Physician. "I'll call you when I am ready to go on." He sat down on a chair by the man's bed. "As a matter of fact, Mr. Rogers," he said, "I would feel exactly as you do if I were in your place. Are you quite sure you would rather know what we think, and that you would not prefer us to tell one of your relatives?"

"Quite sure, doctor. Quite sure. I would much sooner you told me."

"Well," said the House Physician, "I am afraid the tests all rather suggest the diagnosis you have mentioned. But," he added hastily, "remember that no tests are infallible, and that they may quite well be misleading in your case. We would be quite wrong to give up hope." He sought for other words of comfort, and when they did not come, he realised how tired he was.

Suddenly he felt his hand being squeezed. "Thank you, doctor," the man was saying. "You have done me a real good turn. You needn't think I am frightened or that I will go out and commit suicide. As I said, we've all got to die some time. In fact, it is about the only thing we can be really certain about in this life. Any man with responsibilities who is worth his salt likes to know when his ticket is booked. When you get to my age, you don't think about yourself so much as those you leave behind. Thank you again."

The House Physician got up and was rejoined by the nurse. He visited two more beds, and then the bell of the ward telephone rang. Mr. Smith was wanted at the front surgery. He swore beneath his breath and cursed the lot of the take-in house physician. He could not call his soul his own. Innumerable jobs to do and, as soon as you started to do one of them, the telephone bell rang and you were told you were wanted at the front surgery.

As he walked through the Park to his destination he thought about his conversation with the patient with cancer of the stomach. Had he made a mistake in telling him? The man's remark about

suicide disturbed him. Suppose you told the truth to a patient who, after discharge, shoved his head in a gas oven after leaving a note that the doctor at the hospital had said he had cancer. The coroner might make some unpleasant remarks. But this man had volunteered that he wouldn't, and he seemed as good as his word. In fact, the House Physician admired the man's attitude, his desire to know the facts irrespective of the consequences they held for him. His bearing during his last days would be an example and an inspiration to his children. They would think of him in later years and feel proud of him, much as the man seemed to feel about his son who had been killed in the war. He seemed to be more concerned about his daughter's future than his own. Well, good luck to her. If she was anything like her father she ought to make a good wife to whoever she was marrying, and a good mother to his children.

At the front surgery he took in a baby that seemed to be dying after a week of diarrhœa and vomiting. There was still a vacant cot, though not in one of his wards. As he was going back to the ward to finish his round, he realised that he was already ten minutes late for the sing-song. He telephoned through to the College porter, telling him where he was to be found, and made his way to the Physiology Lecture Room, where the practices were held. As he approached it an unco-ordinated and tuneless bellowing greeted his ears. The Residents were singing the chorus of a song. Through an atmosphere blue with tobacco smoke he climbed over desks and sat down next to Young, the house physician into whose cot he had taken in the baby. Young was struggling to sing the chorus of " I want to be happy." The take-in House Physician nudged him in the ribs and shouted in his ear that he had just filled his spare cot and that the baby would be just about ready when the " concert " was over. The sing-song was being conducted by Griffiths, one of the medical registrars. He had no pretensions whatever to a voice, and rightly insisted that it did not matter whether you sang in tune or not as long as you made plenty of noise. That was what the patients liked.

At the piano sat Haines, a versatile man who was just finishing an appointment of house surgeon. The take-in House Physician listened to the victim struggling with the verses of " I want to be happy " and to the raucous bellowing of the chorus. Neither the individual performers nor the chorus had improved much since they had begun the rehearsals three weeks before, and Griffiths was pessimistic. Nevertheless, thought the House Physician, they probably served a useful purpose, these rehearsals, though they wasted a lot of time. After you have stood up and made a fool of yourself a dozen times or so in front of fifteen of your fellow Residents, you minded it less when you had to do it before your patients. When the song was finished, Griffiths made them sing it all over again, but louder. The House Physician then took the opportunity of asking if he could sing his song and go, as he was taking-in and still had a lot to do in the ward. Griffiths said he could. He climbed over the desks and stood by the piano. After Haines had played the opening bars, he bawled at the top of his voice :—

" I miss my Swiss,
My Swiss miss misses me ;
I miss the bliss
That Swiss kiss gives to me."

There were several other verses of a similar character. He had managed to extract some amusement from the previous rehearsals, but on this occasion his lack of sleep made him irritable, and he vented his feelings by making as much noise as possible. The result earned the commendation of Griffiths, and, thanking God for small mercies, he left the lecture room. What a curious mixture of activities hospital life was, he mused as he walked away. You assist in the great dramas of life ; at the same time you act the buffoon. One moment you bring a child into the world and see its mother hold it in her arms for the first time ; next, you see someone die in the presence of weeping relatives ; next, you see the same person lying, stark and grey, on the post-mortem table ; next, you pass what amounts to a death sentence on a brave man ; next, you have to make a hideous noise about kissing a Swiss miss. Yet it was probably a good thing for everyone concerned that the grill was mixed. But that did not prevent him from looking forward to this Christmas with distaste.

He returned to the ward and finished his round. He ate a late dinner, for which he had little appetite. After this he would have liked to lie down and sleep till the night round, but there were some case notes to write up and some letters to send to the doctors of four discharged patients. At half-past ten he got up from his desk and did his night round. He drank a cup of tea in one of his wards and then, feeling very tired, returned to the College and threw himself into bed.

He was awakened out of a log-like sleep at three o'clock by the College porter. He was wanted in the front surgery. The take-in clinical had been called and would follow in a few moments. How harsh, he thought, was the glare of the electric light in his eyes after the soft folds of dreamless sleep. He lay there for a few seconds blinking,

and then threw off the bed-clothes, dressed hurriedly, and walked along the tunnel to the front surgery. It was a young woman in a coma. Her sister, who was with her, said that she had diabetes. He was taking a history from the sister when Simpson, the take-in clinical, turned up. Simpson still had three female beds vacant in clinical, and he admitted her to one of them, thus taking the matter out of the House Physician's hands. As the latter was leaving, he noticed the head nurse talking to a distraught young man who had just come into the surgery. The House Physician joined them and learned that the young man was the fiancé of a girl who had been admitted on the surgical side an hour before with bad burns. The young man had just heard of it from the woman who lived on the floor below and had rushed round to the hospital. The House Physician said that he would take the young man along to the surgical wards so that he could get the latest information. As he walked through the darkness of the Park the young man seemed stunned. He made no attempt to talk, but kept putting his hand up to his head.

There was activity on the second floor of the surgical block. The House Physician left the young man sitting on a bench in a corridor and went along to the lighted operating theatre. Here all was animation. The young woman in question was lying on the operating table in the middle of an anæsthetic. It appeared that she lived alone in a flat, had got up for some reason in the night, and her night clothes had caught fire. The lady on the floor below had heard shrieks, ran upstairs and found the patient lying unconscious on the floor with her clothes and hair burning. The house surgeon was giving the anæsthetic and Basil Lampson, the Registrar, was applying to the burned areas through a spray a coating of ambrine. The House Physician had never seen this treatment applied before. Lampson, a tall, vigorous man with strong black hair was teaching on the case. The skin on which the ambrine was being sprayed was a marble white.

" You see the colour of this skin," said Lampson to the dressers and ward clerk of the take-in firm. " It looks as if there were nothing much wrong with it. Actually it is very severely burned, and, if she doesn't die, later the whole lot will slough. Extensive injuries to the skin like this cause very severe shock. I should put the odds at evens that this girl dies."

It appeared that the whole of one side of her body, including the arm and leg, were burnt in this way. The House Physician noted the marble-like whiteness of the skin where it had been severely burnt. He had not known that that was how severe burns looked. Going over, in his mind, his surgical experiences of the last five years, he realised that he had never happened to see a really bad case of burns. He stood for a few moments watching the application of the spray in liquid form. It came out of a nozzle with a hiss and, hardening in the air, formed a neat skin over the affected parts. The House Physician was about to leave when he recalled that he had not yet told the house surgeon about the young man. As he walked round to the head of the patient Lampson asked how the girl was standing it. The H.S. removed the mask and looked at her pupils. The House Physician was surprised at the beauty of the face he saw. The girl had fine golden hair, some of it burnt, blue eyes dilated like saucers, and skin like alabaster. She was hardly breathing. The glimpse of her face suddenly induced in the House Physician, as a slight shock, that sense of fatality with which, several times in past months, the major tragedies of hospital life had struck him. But the sensation was getting familiar, he thought, and on this occasion his sensitiveness was dulled by six and a half days of taking-in. All the same, why should Fate single out a lovely young creature like that for death or life-long mutilation? There were quite enough decrepit and ageing crocks in the Borough whose useful lives were over and who could now die quite appropriately. Just before Christmas, too. Oh, well! Best to take life as one found it. This sort of thing was, he supposed, in the day's work. He thought of going to speak to the young man in the corridor, but decided not to. After all, the information he could give him was hardly encouraging; could not be less encouraging, in fact. Imminent death or life-long disfigurement for his fiancée. Moreover, the girl was not his patient. Lampson or the take-in house surgeon could break it to the young man. Ten minutes later he was back in bed and fast asleep.

He was not again disturbed that night. He got up next morning much refreshed. In a hot bath he rehearsed his song. " I miss my Swiss, my Swiss miss misses me." He lay back and bawled it at the ceiling several times. The take-in week came to an end at twelve that day, and as soon as Christmas was over things would look altogether brighter. Thank God none of his relatives lived in London. None would hear him make a fool of himself with that ridiculous song. He ate a good breakfast, had a look at the morning paper, and at ten o'clock walked across the Park to the medical wards. It was a warm, sunny day, and the world looked pleasant. He would do the male ward first. The Sister, a cheery woman he liked, greeted him and, after congratulating her

on the gaiety of the Christmas decorations, he began the round. As he approached the fifth bed he noticed that it was screened in. He looked over the top of the screen and saw his friend, the printer, leaning forward with his head in his hands, his body shaking convulsively. On the right side of the bed a man was sitting, his face also concealed in his hands. Suddenly the man by the bedside took his hands away from his face, and the House Physician recognised the young man he had conducted to the surgical ward the night before. Tears were running down his cheeks.

The House Physician was quite mystified. He turned to the Sister, on whose face was a look of deep concern. She drew him aside. "Poor Number Five," she said, "had a terrible shock this morning. His daughter had some sort of accident yesterday and died in here this morning. That is her fiancé."

The horrible truth struck the House Physician like a blow in the stomach. He ran to the side of the bed and seized the sick man's hand.

"Oh, I am sorry," he stammered. "Oh, Mr. Rogers, I can't tell you how sorry I am. I saw her last night, but never dreamt that she was your daughter. Oh, I . . . I . . ." He became inarticulate, and all he could do was to squeeze the man's hand. For a moment Mr. Rogers continued to sob, his face concealed in his other hand. He then began to make visible efforts to pull himself together.

"I'm sorry, doctor," he said. "I'm sorry to behave like this. I'm sorry. But it's my grief."

The House Physician was pierced in the very bowels. He remembered their conversation the evening before, how grateful the man had been because he had told him the truth—that he was going to die of cancer; he recalled the way he had spoken of his daughter—that he did not care what happened to himself as long as she was happy; and—could it be true? Yes, it was—that on the whole life had treated him fairly. He recalled the girl's horrible end and her beautiful alabaster face and wide blue eyes under the anæsthetist's mask.

"I'm sorry, doctor," the man repeated. "It's just my grief." These memories of the girl and of his conversation with her father were pieced together in the House Physician's mind and stabbed him yet more agonisingly in the guts.

He could stand it no longer. He got up abruptly, blew his nose loudly, and walked out of the ward on to the landing.

"My God," he said, leaning up against the wall.

"God?" he said, straightening himself angrily. "God? . . . God??"

His mood changed and he went limp.

"God!" he said, as he walked wearily back into the ward.

C. P. B.

Gold Therapy

A Paper read before the Physical Society by A. M. G. Campbell, Esq., B.M., B.Ch.

MR. CHAIRMAN and GENTLEMEN,—In the treatment of disease, the heavy metals, ever since an early age, have played their part, but it is only in recent years that gold has become well known as a therapeutic agent; to many it comes as a surprise that such an inert metal is of value.

To assess the value of any drug is exceedingly difficult, and possibly in ten years' time gold as a remedy will not have stood the test, but it may be of interest to you if I try to summarise the present views held on its merits as a therapeutic measure.

There are three main groups of disease in which gold has been used, and it is with these I propose to deal: (1) tuberculosis; (2) rheumatoid disease; (3) skin diseases.

Before discussing these it is perhaps best to say a few words on the history of gold. It was used empirically in medicine for various diseases a hundred years ago. Christien, of Montpelier, records using it in 1810 for any number of conditions. In 1890 Koch performed an experiment by which he found that tubercle bacilli were killed *in vitro* by gold chloride. In 1912 Bruck and Gluck tried gold cyanide for the first time in a case of lupus vulgaris. Some years later Feldt carried out experimental work on animals with the same salt and claimed good results in the treatment of syphilitic lesions in rabbits and in recurrent streptococcal infections, and in the same year Ehrlich published the dosage of this salt in the German Chemo-therapeutic index. About 1914 the most well-known gold salt, sodium gold thiosulphate, was produced in a pure form; this is better known by the name given to it in 1924 by Møllgard, *i.e.*, sanocrysin. Until 1916 inorganic compounds only were known, and it was Feldt who first produced an organic compound for therapeutic use, namely, gold thiosalicylic acid; this conformed to the principle of joining gold to

a sulph-hydrl group, and it is on this basis that solganol was worked out.

I will go on to give a brief résumé of the position in respect to gold and pulmonary tuberculosis. The use of metals in this condition is not modern; mercury has had a trial, and some Japanese observers have claimed results with copper salts. The modern treatment of phthisis with gold dates from 1924, when Møllgard, in Copenhagen, began treating cases with sanocrysin, an inorganic preparation of gold, the percentage of gold in this salt being about 37 per cent. It was originally suggested that sanocrysin exerted a bactericidal effect, killing the tubercle bacillus in the body and producing general reactions by the liberation of the contained toxins. In order to overcome such reactions an anti-serum was at first used, prepared by the injection of horses with defatted tubercle bacilli. It was also held that sanocrysin exerted its bactericidal action on the bacilli by being capable of permeating the lipoid membrane. At the present time it is no longer held that sanocrysin destroys the tubercle bacilli by direct action. The suggested reactions are probably of two kinds: (1) Tuberculin-like, resulting from an increased circulation of toxins due to alteration of capillary permeability, such reactions as fever, malaise, loss of weight are accounted for in such a way; (2) Metallic gold poisoning, showing such reactions as skin rashes, stomatitis, abdominal pain, diarrhœa, degeneration of the liver, hæmaturia, albuminuria. The use of the anti-serum has now, therefore, been abandoned.

The question which now comes most readily to mind is—Is sanocrysin therapy a specific one? Such a question is one of extreme difficulty, and at present it is difficult to form any final conclusion one way or the other. I would, however, say that there is some evidence that sanocrysin has, besides a purely protein shock-like action upon the organism, also some kind of specific effect. Burrell pointed out in his paper in the *Lancet* of July, 1928, that a very definite improvement may occur in phthisical patients without any evidence of a shock-like reaction; he gives records of several cases of advanced pulmonary tubercle with continuous pyrexia, in which the temperature fell immediately following a sanocrysin injection, and continued to remain normal without any signs of a reaction to the injection. In these cases the improvement was very marked, and, although such cases are in the minority, I think they are of significance. In the same paper Burrell points out that, although one does get improvement with shock treatment, the results produced by gold therapy do show a distinctly better figure regarding the improvement obtained.

Now a word in regard to the preparations commonly used, the oldest and most generally used is sanocrysin, given intravenously, the percentage of gold being 37 per cent. The other commonly used salts are myocrysin, 50 per cent. gold; allocrysin, 35 per cent. gold, the more recent Bayer preparation lopion, and solganol, 37 per cent. gold. Lopion is used intravenously, the remainder are given by the intramuscular route. Solganol is given either as solganol A in watery solution, or solganol B in oily solution. In regard to the merits of these preparations, each has its advocates. I will deal later with views held in regard to their toxicity.

We now come to the indications for the use of gold in tuberculosis. It is not, of course, one's first line of treatment, and this must be carefully noted when one comes to compare the merits of various treatments. It must be remembered that gold is used in severe cases where one does not get improvement with the usual conservative measures or artificial pneumothorax, and therefore gold is not used in mild cases of tubercle. What, therefore, are the main indications for gold therapy?

It is usually considered that gold is more helpful in the recent exudative or infiltrative types of lesions than in the fibrous or fibro-cavernous lesions. Mansell finds that the following is a useful guide to the indications. He says: "It is of most use in patients not improving with conservative treatment, and yet unsuitable for collapse therapy." It is often used in conjunction with other therapy such as after collapse of one lung. If the disease is bilateral, gold may be given as an aid to checking the disease on the other side. Mansell in his paper also states he has found great benefit from the use of gold compounds as a preliminary to thoracoplasty, as they seem greatly to improve the condition of the patient prior to operation; he quotes two cases of tuberculous pyopneumothorax which were greatly benefited by such a procedure.

Finally gold seems of use in reducing the numbers of tubercle bacilli in the sputum, but this is not, however, a lasting effect. In a series of cases in which about 40 per cent. had negative sputa during treatment, all but 19 per cent. had positive sputa six weeks after cessation of treatment.

RESULTS OF TREATMENT

Workers in Europe are mostly of the opinion that gold is of use in pulmonary tubercle, but that it has not come up to the expectations held by many in the early days of its use is also true. In America, Fishberg, whom everyone must admit is

a very scientific worker, finds his cases do not show any improvement and has given up its use.

I quote you the recent figures of British workers, but I would ask you to accept them with a degree of scepticism because they are not controlled results; further, as one knows from experience, many apparently hopeless cases of phthisis do improve purely and simply on rest in hospital.

Mansell, at Brompton Hospital, used a method of classification as follows. He firstly divided his types of case into: A, Acute progressive; B, Acute recurrence in a chronic case. He then subdivided these according to the severity and extent of the disease. I will not elaborate his classification, but for the purposes of showing the results of sanocrysin, 50 per cent. of cases were acute bilateral febrile ones, 58 per cent. in the resting recurrent group were bilateral resting febrile cases. As you will see, these are all severe cases, but of 153 cases he found 16 per cent. much improved, 51 per cent. improved; that is a total of 67 per cent. were improved. His criteria for improvement were: (1) Disappearance of bacilli; (2) symptom improvement; (3) physical sign improvement; (4) radiological improvement. Before classing a case as improved three of these criteria had to be satisfied. He noted that the exudative type improved most markedly. Beaumont shows some very similar figures; he found a 74 per cent. improvement in the same type of cases as Mansell's.

As you see, these figures are not controlled, and are therefore not of great value. Burrell, although he does not give statistics, states that in his cases of the same severity he got a slightly higher percentage of improvement in those treated with gold than in those given no gold. Therefore, to sum up, it does seem to be of value :—

1. In acute bilateral disease.

2. As an associated measure to collapse therapy in severe bilateral disease.

3. As a preliminary measure before thoracoplasty, especially in cases of tuberculous pyopneumothorax.

4. In cases where the sputum persistently remains positive.

Before leaving the subject of gold and pulmonary tuberculosis one must say a word concerning the dosage. When gold therapy commenced in 1924, the average course was anything from 5 to 10 grams, and the dose commenced at about .4 grams; this high dosage has now been almost entirely discontinued by the majority of workers, and just as good results are obtained with smaller dosage, beginning, say, at .01 grams and working to a maximum dose of .5 grams at weekly intervals, with a total dose of 4 to 5 grams for the course.

I purposely have not mentioned toxic effects, as I feel these are best left to the end of this paper.

GOLD THERAPY IN RHEUMATOID ARTHRITIS AND ALLIED DISEASES

Continental opinion has long tended to regard rheumatoid arthritis as being intimately related to tuberculosis, and it is possibly for that reason that gold therapy was first used in this condition, following its trial in pulmonary tuberculosis. The earlier work comes to us from Forestier, at Aix, and certain German workers.

Before passing on to the results obtained one must consider the type of arthritis which responds best. The ætiology of rheumatoid arthritis is still a matter for conjecture, and whether one draws a line between what Ray terms "infective metastatic arthritis" and rheumatoid arthritis, which he supposes is due more to a metabolic failure than an infection, is immaterial for the purpose in hand, because gold treatment has been claimed to be of use in both these types, and all those cases where no hard-and-fast distinction can be drawn.

What is important to realise is that these are clearly differentiated from an osteo-arthritis by a careful clinical history and radiological examination, because, although gold therapy has been tried in osteo-arthritis, as I will mention later, one cannot say it is of any value.

There is, too, a general rule that the result is more certain the longer the standing the disease has. One must stress that the use of gold is contra-indicated during the acute pyrexial stage of the disease. Gold therapy is of chief use in those cases where the acute stage has passed and the sub-acute stage is reached, where in a severe neglected case the patient presents a pitiable sight, often anæmic, wasted, with functionless joints ankylosed in bad position. There is little doubt that in the acute stage of the disease the correct treatment is rest, with splintage of the joints in the best possible position. Perhaps it will give you a clearer picture of the scheme of chrysotherapy adopted in these cases if I sketch one of the case notes Forestier quotes :—

Mme. B., 56 years. Came to Aix, July 31st, for polyarthritis. Disease of four years' duration, having been bedridden for three. A slow, insidious onset, affecting firstly the small joints of feet and hands, then knees and elbows, making walking an impossibility, with gradual ankylosis of the joints, with considerable constitutional disturbance. She had had many previous treatments, including vaccines and protein shocks, and had been given up as incurable.

F.H.—Husband had tuberculosis. Forestier stresses this.

P.D.—Pneumonia, aged 30.

She had a normal temperature, and her blood count gave the following results :—

R.B.C.—3,380,000.

W.B.C.—24,000.

Hb.—77 per cent.

Differential figures :—

P.M.N.—50 per cent.

Lymphocytes.—30 per cent.

Eosinophils.—4 per cent.

Sediment rate, 104 in 1 hour.

It is necessary to refer in brief to the sediment rate. In apyrexial cases of this type the true condition of the patient is well shown by the sediment rate, which is very high in severe cases, and weekly sediment rates are done as a routine by Forestier. It is well to make allowance for anæmia, as in all anæmic conditions the basal sediment rate rises.

This patient was given two courses of gold :—

10 injections .1 gram, 1st course (weekly).

3/12 interval.

Then 15 injections, 2nd course, over a period of 15 weeks, combined with hydrotherapy and massage.

In one year she had improved markedly, gained weight, and her blood in June, 1932 :—

R.B.C.—4,420,000.

W.B.C.—23,490.

B.S.R.—39.

Differential similar.

Her joints were manipulated under anæsthesia and slowly re-educated, and she made an excellent recovery, and returned, as Forestier puts it, to become a more or less normal person capable of performing once again her household duties.

As this case shows, Forestier follows his chrysotherapy with manipulation, followed by preliminary fixation and later re-education of the limbs to a useful function.

Results.—For the results obtained by this therapy I quote the work of Pemberton, in Manchester, and Hartfall and Garland in Leeds, whose experience is larger than that of others.

The B.M.A. Report on Rheumatism states that the use of gold in arthritis has not met in this country with the good results claimed for it on the Continent ; the results obtained by the workers I have already mentioned rather tend to disprove this statement.

Pemberton in a series of 100 cases, all polyarticular cases with careful exclusion of gonococcal and tuberculous joint disease, claims an 80 per cent. improvement with a 12 per cent. complete cure, his cases being fairly severe ones. Hartfall published in July his results in 100 cases after the same line of treatment, and he found that out of 65 chronic cases, and 35 subacute cases in all, in which other treatment had been tried without avail, after two courses of solganol or zyocrysin 70 per cent. had definite improvement and 15 per cent. were cured.

I will now read you a few notes on the work of Hartfall which I made in Leeds in November last.

NOTES ON TREATMENT OF RHEUMATOID ARTHRITIS BY GOLD INJECTIONS

As a result of a Visit to the Clinic of Dr. Hartfall at Leeds.

Type of Case—

No selection of cases was made in this investigation, and all cases of arthritis were treated, whether they fell into the rheumatoid or osteoarthritic group ; the latter were told not to expect much benefit from the treatment.

Points of importance in the history to be stressed were :—

1. Past history, particularly if any tuberculosis.
2. Previous diseases, especially V.D. infection.
3. Onset of the joint disease ; if rapid or slow ; if accompanied by a pyrexia ; and the duration of the disease and progress up to this point.
4. Previous treatments, if any, and the results of those treatments.

In the cases I saw, of which the majority were true rheumatoid arthritis type, 80 per cent. were women. There did not seem to be an abnormal familial incidence of tuberculosis or of venereal disease. The majority of the cases had a slow onset ; most of them had had previous treatment with no benefit, ranging from diathermy, vaccines, protein shock, diet to spa therapy.

Notes on Organisation—

The clinic has been in existence for about eighteen months, but only recently has reached the size it has now attained. On the afternoon I was there, about 250 cases were treated and the numbers are fast rising, and it appears that the good results are partially responsible for this rapid rise in attendance.

The times of attendance are restricted to Tuesdays and Fridays (1.30 to 5.30 p.m.), during which hours Drs. Hartfall and Garland see all the patients, and, after their check of the notes, the patient is passed on to a house physician for the gold salt injection. All patients are treated as out-patients.

The salts used are myocrysin, solganol (intramuscular), allocrysin, lopion (intravenous). The latter is now most favoured as being the least toxic ; myocrysin is considered the most toxic.

A new case is carefully examined for any contra-indication (the major of these contra-indications

are (1) decompensated heart disease, (2) renal or liver disease). After this examination the patient is given his or her first injection of gold and is sent home. The patient's own doctor is asked to keep an eye on him, and he returns at the intervals stated by Dr. Hartfall in the *Lancet* of July. The amount of the total given for one course is less, however. It is now a 1-gram course, then an interval of six weeks, followed by another 1-gram course.

Routine Investigations are—

1. A urine test before each injection.
2. A B.S.R. at weekly intervals.
3. Hb. percentage.

(The question of blood counts is discussed later.)

Results—

I was most impressed with the results obtained at the clinic. The majority of the cases were working women, many of whom had been unable to do their work owing to extensive rheumatoid disease. Many of these, after a course, had now begun to work once more.

The entering up of improvement, or not, was very fairly done. The tendency of all patients—unless of the neurotic type—is to tell the doctor that this or that treatment is of benefit, because the patient feels this will please the doctor. This is combated by the question: "In what way, Mrs. X, do you feel you are better? What things can you do now, since treatment, you could not do before?"

I estimated that 75 per cent. of the patients were improved by the treatment, about 40 per cent. very markedly so. Two cases seen had been bedridden for a period of a year, and were now walking without pain.

As stressed before, no selection of cases had been made and no other treatment, except the treatment of any coincident anæmia, was given at the same time. In one or two cases manipulation under sodium evipan had been performed. No septic foci were dealt with, unless the patient directly drew attention to an obvious focus causing trouble. It was thus directly possible to assess the improvement due to the injections. The cases which improved were advised to return for regular prophylactic courses in the same way as the Annexe patients here are advised to keep under observation.

GOLD IN SKIN DISEASE

Lastly, one must consider gold and its therapeutic use in skin conditions. On examining dermatological literature one finds that gold salts are used in very many skin conditions. For the purposes of brevity, I will only deal with two such conditions, in both of which they are of considerable value, *i.e.*, lupus erythematosus and psoriasis. When I dealt with the subject of gold and rheumatoid arthritis I mentioned the fact that the application of these gold salts to this disease was as a direct result of the theory prevalent, especially in France, that rheumatoid arthritis is in some way of tubercular origin, and here again in lupus erythematosus one finds the same view held by some, in France especially; for this reason gold salts were used in this disease, and even earlier in lupus vulgaris, but while few workers now use them in lupus vulgaris, they have become the established treatment in lupus erythematosus—in fact, the most valuable treatment we possess for this condition. Most dermatologists now regard lupus erythematosus as being due to the toxins of bacteria, that is to say not to any one organism, but a toxic reaction to either the tubercle bacillus or a streptococcus. What one must lay stress on is that gold treatment benefits many cases where no link with a tuberculous condition can possibly be found.

In 1922, Martinstein first used trysalgon, a proprietary gold compound, for this disease, with extremely good results. Semon in this country in 1926 published some excellent results from this treatment, and since then it has become a standard form of treatment in this disease.

Franklin, who has published a recent paper on this subject, has collected some interesting data. He found the type of case which responded best was the superficial type, in which the disease was of one year's or less duration. In these he got a 75 per cent. cure, 8 per cent. improvement, and 17 per cent. no result in 14 cases. In a series of all cases, whatever the duration, his figures were: 64 per cent. cure, 14 per cent. improved, 22 per cent. no result. I must add that gold therapy is contra-indicated in the acute febrile type of this disease, victims of which so often die of septicæmia. (All admitted to this hospital of this type have died during the last five years.) Gold is only of value in the chronic and more strictly localised form of the disease. Other workers claim the following results: Semon, 30 per cent. cure; Smith, 42 per cent. cure.

Before leaving the use of gold in skin disease, one word in connection with psoriasis. As with so many skin conditions, its ætiology is unknown, but from the number of cases of rheumatoid arthritis associated with psoriasis an interesting point arose; in many cases the psoriasis improved more quickly than the joints under gold therapy. This was very marked in a case under Dr. Hurst in Mary last summer. Recently Dr. Barber, at this hospital, has had very good results with the use

of solganol given in weekly injections of .02-gram doses for psoriasis.

I should add that, in treating lupus erythematosus, the courses and dosage are strictly comparable to those used in rheumatoid arthritis. As in those cases of lupus erythematosus which improve, the lesions in psoriasis rapidly fade and leave no scarring.

REACTIONS

I have purposely left the question of contra-indications to gold therapy and the reactions and fatalities brought about from its use to the end of this paper, because I feel they are insufficiently realised. The contra-indications to its use are, in brief, liver and kidney insufficiency, heart disease, familial blood diseases and pregnancy, (in the recent literature there is a recorded case of abortion from this therapy).

Now to turn to reactions due to gold. First, there is often an immediate reaction, rather resembling that following protein shock, with malaise, pyrexia, vomiting and joint pains. This is usually, I think, due to an overdose, and is due to metallic poisoning, and is not as serious as the other reactions. Gold is excreted very slowly; it is still present in the liver and kidneys anything from 18 to 30 days after being given, and it has a very definite toxic effect on the liver and kidneys, which may be fatal if their function is imperfect. It is essential if these cases are not to occur that before each dose the urine be tested, and as a precautionary measure the patient be put on large doses of alkalis, and by large doses one means what Dr. Osman means—a dose of 200-300 grams for the day. With these precautions deaths from this cause can be excluded.

The liver does not suffer so severely as the kidney, and I can find no recorded case of liver disease causing death. There are numerous cases of jaundice recorded, and whilst I was in Leeds they had had in one week three cases showing jaundice from a sub-acute hepatitis. Saleeby in his work on the toxicity of gold compounds found many of his animals died from liver damage.

Next we come to perhaps the commonest of all types of reaction—dermatological.

The eruptions produced by the therapy are :—

1. Acute exfoliative dermatitis.
2. Lichenoid eruption, usually on the extremities.
3. A purpuric eruption.
4. Pigmentation with melanin deposits as in arsenical poisoning.

If these eruptions appear it is a definite contra-indication to further gold therapy. Another rare reaction recorded is one in which a lady undergoing gold therapy in Switzerland returned to England with her skin a beautiful lilac in colour; luckily this is rare. It is with the purpuric reaction that one must beware. The most serious reaction connected with gold appears to be its action on the blood. This appears to be in certain cases an intense depression of the platelets and leucocytes, and causing death from hæmorrhage or agranulocytosis.

Hartfall, in Leeds, has had three deaths from hæmorrhage due to this purpura, for which the only treatment appears to be transfusion. These deaths occurred some weeks after cessation of a gold course consisting of the minute doses already indicated. The platelet count in one case was 30,000, in another only 18,000 a day before the patient's death.

Hartfall has also had a death from agranulocytosis produced by gold therapy, while Elman has also recorded a death in a patient in whom the leucocyte count was only 1,100, 87 per cent. lymphocytes, the day before death. Pentanucleotide was given in this case without avail.

These changes in the blood are to be taken very seriously, and weekly white and platelet counts should be, but rarely are, carried out during a course of gold therapy. It would seem as if these blood changes depended upon some idiosyncrasy in the individual's platelets and whites, yielding them unresistant to the toxic results of even a minute dose of gold.

Lastly, gold may give rise to a severe stomatitis and gastro-enteritis accompanied by diarrhœa, and as these are early signs of a toxic reaction, they should always be carefully watched for.

In the treatment of these reactions there is, unfortunately, little of proved value. As a prophylactic, Williams has claimed he gets many less toxic reactions by giving his gold in a solution of calcium gluconate, and Dr. Marshall supports this view at Guy's.

For the reactions, sodium thiosulphate is generally given on the basis that it combines with the free metal. It is given in a dose of about .6 to .75 grams; whether it is really of great value it is difficult to say.

Forestier mentioned recently a new prophylactic measure, the giving of injections of liver extract or glycine with the gold injections. I fear I do not know the reason suggested as to how this prevents reactions.

I have tried to give you some idea of the present position of gold. In the German literature you will find reports of its value in infective endocarditis, septicæmia, and disseminated sclerosis, but these reports are rather unconvincing, and the number of remedies already claimed as

curative in these three diseases, which are usually cured, if cured at all, by Nature, makes one all the more sceptical. In the three conditions I have dealt with I have tried to show that on present knowledge the treatment really is of value; it has suffered because it was boomed as being comparable to salvarsan in syphilis as a therapeutic agent for tuberculosis—this it certainly is not.

I have sketched the view held about its action in tuberculosis. Personally I feel it may form some compound with the body proteins which makes it of therapeutic value. We cannot, with our present knowledge, say how it acts, but I feel that it is of use if one is fully aware of its dangers and takes every measure to avoid their occurrence.

To summarise, gold and its use is still in the melting-pot, and before it can be said to be of great value more controlled investigations are needed. I have in this paper given you the views of its advocates, who perhaps are over optimistic, but I think it is a form of treatment in the three conditions I have mentioned which is worthy of our extended trial, but with caution and an open and critical mind.

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"Princess Ida" or "Castle Adamant"

Produced by the Guy's Hospital Operatic Society at the Fortune Theatre, on March 3rd to 7th, 1936

ONE often wonders why it is that Amateur Operatic Societies indulge so frequently—we had almost said so inevitably—in productions of Gilbert and Sullivan. These works, whatever their merits may be, are far from easy either to act or to produce, and the advantage that is gained by the fact that the audience, through familiarity with the work, sits down with its mind already attuned to what is to come and is sympathetic, if soporific, towards it, is offset by the corresponding disadvantage that for the most part that audience has also seen professional performances of the same piece. Our Musical and Operatic Society, like most other amateur bodies, deals exclusively in Gilbert and Sullivan, and from March 3rd to the 7th presented "Princess Ida" at the Fortune Theatre.

Most of these operas now seem a little "dated," and "Princess Ida," that gentlest satire on the admission of women to the Universities, has lost much of its point now that the female encroachment is an established fact, and in these days when Tennyson is never read the allusions of the story tend to pass over the audience's heads. But as a period piece it is still interesting enough, and though a present-day audience will seldom smile at a reference to Dr. Watts's hymns or at the lines from the Princess's aria :—

"Let Swan secede from Edgar—Gask from Gask,
Sewell from Cross—Lewis from Allenby!
In other words—let Chaos come again!"

yet there is fun enough, and the work succeeds in spite of it. But only just.

The scene opens in King Hildebrand's palace, where the assembled Court awaits the arrival of the detested King Gama with his daughter, the Princess Ida, who for twenty years, or since the age of one, has been betrothed to Hilarion, the son of Hildebrand. But Gama brings her not; she is the ruler of Castle Adamant, a University for females, guarded by impregnable walls and inflexible rules, like some Nurses' Home. On finding that Gama, in failing to bring the bride, has broken his promise, Prince Hilarion, together with Cyril and Florian, young popinjays of the Court, resolve to storm the beauty in her castle, and Hildebrand has Gama and his bodyguard seized in chains what time the bride is won.

So much for the exposition, and in the second act we see Life at the University, and, according to plan, the three youths duly appear on their Ida-hunt, having scaled the walls and happened, by some happy chance, on some academic gowns with which they hope to disguise themselves. They have the good fortune to meet the Princess Ida alone, and succeed in imposing upon her, but their plans are then upset by finding that Lady Psyche, the Professor of Humanities, is none other than Florian's sister, so she has to be taken into the secret and involved in the deception. Melissa (the sort of girl, being the daughter of Lady Blanche—the Professor of Abstract Science—who would come in at the wrong moment) overhears the conversation, so she's in the secret, too. But, thrilled with the sight of a real man, she wantons gaily with the newcomers, and as they leave—evidently it runs in the family—she is inoppor-

tunely surprised by her mother, Lady Blanche, who has recognised the impostors for what they are. No, she is not deceived, and Melissa sees it; therefore her sympathy must be gained, and this is done by the subtle suggestion that if Hilarion be allowed to carry off the Princess Ida, then she, Lady Blanche, will be left to rule the Senior Common Room. This attraction is too much for her to refuse, but during the ensuing luncheon Princess Ida also realises that the newcomers are men, and they are in jeopardy again. So overcome is she that for some reason or another she falls into the river, and, though rescued by the gallant Hilarion, the ungrateful hussy has them put in chains. And the end of the act is complicated by the arrival of Hildebrand with his army, who threatens to raze the whole place to the ground unless his son and the Princess Ida are delivered to him. But the Princess stands firm and the massed forces of Girton, Newnham, Lady Margaret Hall, Somerville and St. Hugh's are gathered against his army to defend the citadel.

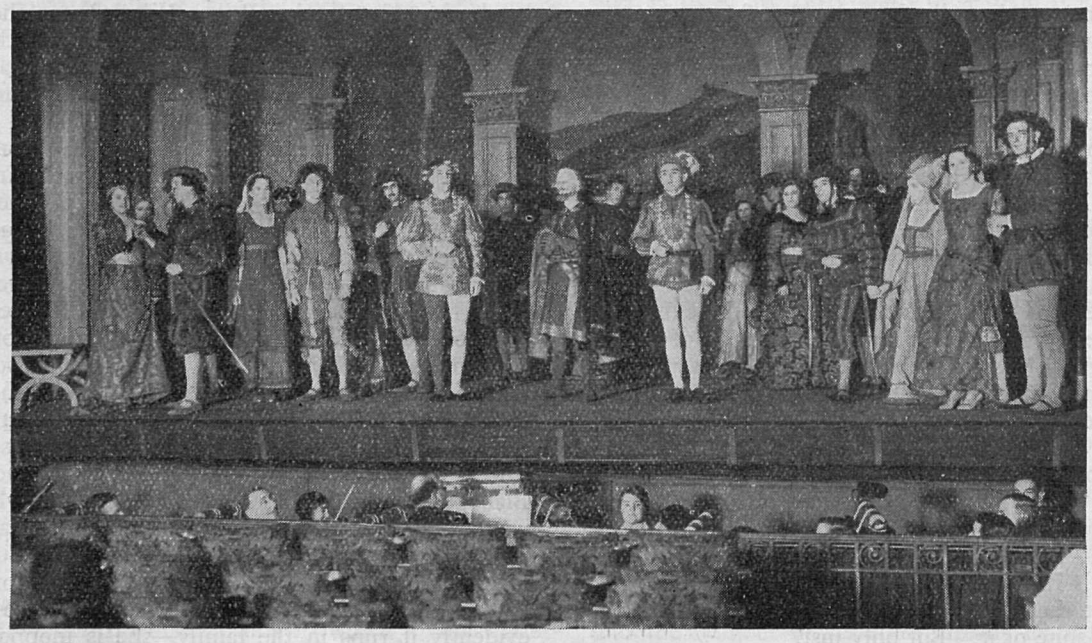
There remains the dènouement.

At the beginning of the last act the curtain rises on the courtyard of Castle Adamant, where are revealed the ladies chastely clad, like policewomen, in blue, with battle axes. As they discuss their plan of campaign Gama, released by Hildebrand to act as envoy, comes to make terms, and, instead of the glorious battle, it is decided that the three sons of Gama shall be pitted against Hildebrand's hermaphrodites. Of course, Hilarion, Florian and Cyril put it across the sons of Gama, and Hurrah, hurrah! Ida, Melissa and the Lady Psyche (whose views on matrimony all seem to have undergone a sudden change) are found in the arms respectively of the three young heroes. The remaining members of Castle Adamant University, however, are to remain under the sway, one supposes, of Lady Blanche, but this grim prospect is forgotten in the joy of wedding bells and the keen anticipation of connubial bliss.

Of this rather unpromising material—though garnished a little more with wit than this garbled summary would suggest—the opera consists.

The exposition in the first act depends largely on King Hildebrand and King Gama, and it is not until the second act (when we see the routine of Castle Adamant and the arrival of the intriguers) that much enthusiasm is aroused; the main burden of this part of the opera falls upon Lady Blanche and Princess Ida, and to a lesser extent on Lady Psyche, and then upon the intriguers and Melissa; in the third act, apart from the duel, the success is chiefly dependent upon Princess Ida and King Gama. These eight, then, are the important characters.

The dullness of the first act was not successfully overcome. The company was fortunate in having an able and talented King Gama in Mr. Cyril Wright, who successfully combined a repulsive appearance with clarity of speech, and was most convincing as a meddling, maddening, intolerable and complacent old Nosey Parker, but King



Hildebrand (Mr. W. H. Clarke), with a more difficult because more negative part to play, was somewhat inadequate. His gesture was stereotyped, he tended to wave his arms with an undeviating up and down movement like traffic indicators; his speeches were exceedingly difficult to hear in that he spoke neither loudly nor slowly enough, and he sometimes beat the orchestra to the end of the line in his songs. But far the worst feature of this act was the incessant movement and conversation among the chorus. Not only did this distract from the main action, but the confidential whispers between choristers and chorus girls were occasionally almost as audible as some of the remarks of the performers. Or so it was on the night on which we saw it.

The second act, however, was unrecognisably better. One was immediately put in a good temper by the exceedingly good colour scheme and the excellent disposition of the undergraduettes upon the stage. Lady Psyche (Miss Hicks) sang her song well, Lady Blanche was adequate, and Princess Ida was very good indeed. Lady Blanche (Miss Abbott) was at times out of sympathy with the orchestra, and we felt that she had perhaps modelled her interpretation of the part on that of the late Miss Bertha Lewis. We never saw Bertha Lewis in this part, but (notwithstanding D.M.N.N.B.) we never cared for her performances very much. Much of the ingenuity of Lady Blanche's very witty song :—

" Come, mighty Must,
Inevitable Shall,"

was lost to the audience.

Miss Wheeler, as Princess Ida, was the high-light of the show. She looked ravishing, and is blessed with a very good voice, which she used with excellent control, and it was she who was responsible for the success of the first part of the second act. With the entry of the three intriguers, Hilarion, Cyril and Florian, we were treated to some action, and the ensuing moments when, disguised in academic robes, they imposed upon the Princess Ida, lifted the performance to an altogether higher level. Mr. Salmon as Florian and Mr. Thompson as Cyril entered into the romp with an exuberant abandon which cheered our hearts, though the former, it is true, stole a line at one point. Mr. Fogg as Hilarion was the least successful of a good trio, and an undue restraint rendered him, we felt, unnecessarily circumspect. If the Lady Psyche really pronounced *ranunculus bulbosus* as Hilarion suggested that she did, it is not surprising that she " at school alarmed her mates." But the show had really got going by now, and the hitherto rather sluggish and unresponsive audience reacted with increased rapidity and warmth.

Miss Faith Wood as Melissa made a most convincing wanton, and cavorted with the youths wholeheartedly.

With the entry of the remainder of the cast, Hildebrand and his army and the sons of Gama, the end of the act became a little ragged, owing to the difficulty of discipline among the chorus, but they grouped themselves successfully in the end, and the improvement over the first act was enormous.

The curtain rose on the last act to reveal Melissa exhorting the troops. This chorus was well sung and well produced; there was a very fine colour scheme of blue and silver. The Princess entered to inspect the warriors, and it was revealed that the Lady Surgeon, appropriately enough, was Sister Weston. The revolting Gama then entered, and his :—

" I am possessed
By the pale devil of a shaking heart ! "

followed by—

" Whene'er I spoke
Sarcastic joke,
Replete with malice spiteful,"

were very good indeed. We were intrigued by the tumour of the tibia which was one of his deformities. After some speculation, and considering his age, we came to the conclusion that this must be a tertiary lesion. The duel between the popinjays and the sons of Gama was quite realistic and very well done, and led to a good finale. We found that our forebodings at the end of the first act had not been fulfilled.

Of the actors, Princess Ida struck us as being the best, and on the female side was followed by Melissa and Lady Psyche. Of the men, King Gama, Cyril and Florian were in a different class from the others. Arac, Guron and Scynthius, the sons of Gama, had an unenviable task in their heavy armour, and were not very well together either in their trio or in the song in the third act; their inco-ordination was perhaps explicable by the weight of their encircling ironmongery. No one that we noticed forgot his part, and, apart from the fact that one chorus girl became entangled in the curtain, and the intolerable tendency of all the chorus, except a very few, to move about and chatter, the performance was fairly finished.

The orchestra was good, and we understand that it had been augmented by more professional players than on previous nights, which no doubt also made matters easier for the singers.

The producing was good too, and Mr. Western is to be congratulated on his handling of the crowd,

especially in the University scene in Act II, the young intruders' dance and the luncheon party; the disposition of the troops in the last act was also excellent. There was one great fault which was probably peculiar to the particular performance which we saw, and that was the not infrequent outbursts of a loud buzzer somewhere just off the stage. At the first buzz several house officers were seen to leap involuntarily from their seats, but at one period in the second act this sounded for several minutes on end with deafening effect, almost drowning the voices of the singers.

The shortcomings of the show were, then, partly inherent in the nature of the opera itself, and also lay partly in the fact that the main burden fell upon a few members of the cast who were not adequately supported by the chorus. It would be too much to expect that the *dramatis personæ* should be of a uniform merit, but one felt that the disparity between the chief characters and their supporters was unduly evident. But it says much for the chief characters that they were able to carry it off.

We very much enjoyed our evening, and if we should seem critical, that is because we thought the show worth criticising, and any criticism is better than an unbridled eulogy. And should—

"... everybody say I'm such a disagreeable man,"

well—

"I can't think why."

M. P.

Correspondence

Prognosis in Hæmorrhage from Gastric and Duodenal Ulcer

To the Editor of the GAZETTE

SIR,—In view of the recent paper published in the *Lancet* recommending that *every* case of hæmorrhage from gastric and duodenal ulcer should be transfused and operated upon at once, I am anxious to get accurate statistics as a reply to this very dangerous teaching. Hospital statistics are unreliable, because only the more severe cases are likely to be admitted, and because when death occurs from hæmorrhage, it is not infrequently due in part to the harm done by the

excitement and fatigue of the journey to hospital more than outweighing the advantage of having transfusion or other special treatment difficult to carry out at home. The statistics of both consulting physicians and consulting surgeons are unreliable because they only see selected severe cases. I quite realise how difficult it is for general practitioners to supply statistics, but I think that most would find it possible to answer the following questions with a fair degree of accuracy. The questions are only meant to refer to patients seen in ordinary private (not hospital) practice. I should be very grateful to any of your readers who are good enough to send me postcards with their answers to the questions. I should value data from those who have only been a few years in practice as well as from those of long experience.

(1) Number of years in practice.

(2) Approximate number of cases of hæmorrhage from gastric, duodenal or jejunal ulcer seen and treated in private practice.

(3) Number of deaths :—

(*a*) Without operation.

(*b*) With operation.

(4) Number of operations :—

(*a*) Successful.

(*b*) Fatal.

(N.B.—This only refers to an operation done for actual hæmorrhage, not an interval operation to prevent recurrent hæmorrhage.)

(5) Number of cases transfused :—

(*a*) Successful.

(*b*) Fatal.

ARTHUR F. HURST.

New Lodge Clinic,
Windsor Forest.

The Phantom H.P.

To the Editor of the GAZETTE

SIR,—It is quite possible that, after 50 years, my unaided memory may have had a lapse, as I have no documents to which I can refer. Dr. Busteed was captain at the time and I was a first- or second-year student.

I gave the story as it was told in the Medical School, and I don't think Dr. Busteed's hypothesis is correct, as he says the Colclough episode occurred in 1886, which was before my time, and the story I heard specifically stated that Dr. Perry was the Dean concerned in it, and I don't think he was Dean till after 1886.

If the story is true, there ought to be some one of the *Gazette's* readers who has heard it. Last autumn I sent a letter to *The Times* about an incident in a school football match which took place in 1878, and I received no fewer than four letters from players or spectators after 57 years.

Yours, etc.,

R. L. WASON.

Lichfield, Clevedon.

(***This correspondence originally arose out of our story of the impostor who appeared in the College at Christmas. Dr. Wason wrote telling us of a comparable episode in the late 'eighties. Dr. Busteed then wrote disagreeing with some of the details.—*Ed.*)

College Photographs

To the Editor of the GAZETTE

SIR,—Being a student of the correspondence columns of your old-established *Gazette*, I read a letter signed not by one but by many present-day students of Guy's Hospital. It contained the following words :—

" In the College luncheon and reading rooms . . . an unpleasant decoration of dingy paint, and photos from the last century, and comfort of the kind usually associated with station waiting-rooms. There is a lasting effect on our work and lives."

The thought has struck me that my own features may appear in some of the late last and early this century photos, posing as a flannelled fool or an about-to-be muddied oaf.

Living, as I do, out here in the wilderness, surrounded by the variously shaped and coloured faces of the African negroes of different tribes, one forgets that fashions in faces may change in a country where such things are more stereotyped, and that what we once thought were quite ordinary photos and faces might be classified by a succeeding generation with dingy paint and railway waiting-rooms and likely to affect youthful lives.

In order to clear oneself of any guilt in this matter, may I offer to buy (at a reasonable price) any photographs in which I appear? 1898 to 1903 A.D. would be about my years, and rugby, cricket and tennis the past causes of my present offence.

If one appears to make this a somewhat self-consciously personal matter, it is because one feels that in such a delicate affair as personal appearance it is kinder not to implicate one's friends by suggesting that their photos may be having a lasting effect on latter-day medical students' lives similar to that imparted by dingy paint and the lack of comfort in railway station waiting-rooms.

Anyhow, I would like the photographs, and will risk the lasting effect they may have on my children.

Yours, etc.,

M. C. WETHERELL.

Naivasha, Kenya.

"Princess Ida"

To the Editor of the GAZETTE

SIR,—During the evening of Wednesday, March 4th, a party of friends and myself sallied forth from our halls of abode, determined to enjoy life to the full. Having dined at one of those quaint French restaurants which form the nucleus of Sohovian life, we found ourselves in front of the Fortune Theatre some time later after vague ramblings hither and thither in and around tortuous paths.

I mention all this because it is only fair to everyone and to myself to indicate that we arrived at the theatre in a very contented state of mind, born, no doubt, of satisfied gastra, bent only upon regaling ourselves with the pleasantries of life. Therefore we were not hypercritical; all we asked was to enjoy the show, nor were we gainsaid our ambition. As comic opera "Princess Ida" fulfilled almost every obligation; for myself, I laughed as seldom before to see friends in guises undreamed of. When I considered that the cast consisted of persons who are my associates and, unlike myself, have many other duties to perform, I found myself speculating as to how they had managed to find the time to put up such a creditable show.

One cannot progress here without commenting upon the excellence of C. Wright as Gama, and I was quite amazed by the performance which he gave, continuously observing him as I did; on no occasion could I detect that he was not living his part. Apart from his somewhat uncomfortable postures, he must have enjoyed it nearly as much as we, and if he did he certainly had five very jolly evenings.

My resources were much taxed to recognise in Hildebrand my friend Howard Clarke, and it was only upon hearing his voice that I was able to convince myself that some mistake had not been made in the programme. Our amorous hero was possessed of a charmingly sweet tenor voice and his actions were very graceful, but Princess Ida did not, I am afraid, convince me that she herself was very impressed by her arguments. Perhaps, however, that impression was emanated only on Wednesday; there was no doubt that her voice is well above the average and her mannerisms suitably dignified.

The professor of abstract science was immensely interesting, and, contrary to some opinion, I consider that the part was played with real understanding; one must recollect that, as second in command, she was bound to feel her position of inferiority to a person young enough to have been her daughter and to be somewhat acrid and haughty. Among King Gama's sons Hacon struck me as being rather clever, for I am sure that it is not easy to divest oneself of the rather cumbersome accoutrements of armour, the while lustily chanting. Melissa had a perfectly winning little way of kicking up her heels in lamblike gambols across the stage, much to the obvious delight of the audience.

Hilarion's companions admirably supported him. That really amusing waltz *cum* polka executed in the castle grounds left one quite hoarse the next morning.

The chorus was a trifle apathetic at times, but when one considers that it is rather boring merely to stride about stage and feign interest when one is not actually singing, one is ready to condone. One member, however, was determined to take the whole affair most seriously, and when engaged in swinging her battle-axe I had the gravest fears for those around her!

The orchestra gave of its best under the circumstances and erred on the side of caution, insomuch as it did not try to overpower the soloists as so many amateur orchestras do; in point of fact, one frequently has an evening completely spoilt by competitive attempts of orchestras to assert their superiority in speed and volume over the soloists, and *vice versa*.

Summing up, we enjoyed ourselves vastly, because we went, not with the intention of gaining æsthetic pleasure, but to see our colleagues at play. For myself, I would like to register my sincere thanks to all who took part and to those upon whose shoulders fell the task of organising the show. They more than deserve it.

For the future all is not clear, but I do really hope that these operas will not be permitted to cease; together with other similar functions they form the life-blood of the hospital's social existence.

Haec olim meminisse juvabit.

Yours, etc.,

A. G. C. CORLESS.

Guy's Hospital,
S.E.1.

Guy's Hospital Gazette

The Editor will, at all times be glad to consider articles or sketches, provided that they are accompanied by the writer's name and address, not necessarily for publication. Authors who desire reprints of their papers should make their own arrangements with the Printers when they return their proofs. All contributions to be addressed to *The Editor*, who does not accept responsibility for the views expressed by contributors.

F. C.

Sport

Rugby

Guy's v. Old Cranleighans

AT Thames Ditton on Saturday, February 29th, Guy's won a most exciting encounter by a dropped goal and 2 tries (10 points) to 3 tries (9 points).

It was a magnificent game fought out at a cracking pace from start to finish, and both teams deserve praise for giving such a fine exhibition.

Guy's had bad luck immediately after the interval when they lost Halamandres, their full-back who had to retire with a badly cut head.

Both sides were strongly represented, but Wright was an absentee from the Hospital XV, and Reynolds was unable to play for the Old Boys.

Play opened with a dashing raid by the Old Boys' forwards, but after this had been repelled the Hospital backs carried out a nice passing movement which transferred play to the home 25. Soon afterwards J. P. Crawford (who was making his first appearance for Guy's) made a fine run, and only a splendid tackle by Suter prevented him from scoring. However, Allen cleverly intercepted a pass to Ridgeway, and created an opening for Dick, who ran to within a few yeards of the line before sending Fletcher in for an unconverted try near the corner.

The Old Boys replied immediately, when Key (who played a great game) created an ideal opening for Glover, who made a brilliant run along the left wing following clever passing from the restart, and registered a try in the corner.

Both teams were now playing splendid football, and with each side attacking in turn the excitement was intense. Guy's gradually worked the ball down on the left, and both Stanyon-Jaques and Crawford were kept out only a few yards from the line.

Eventually the ball was sent back from a line-out in the home 25, and Allen, finding himself in possession in front of the posts, took advantage of the wonderful opportunity that presented itself and dropped a perfect goal.

The Old Boys set about the task of reducing the deficit and the forwards dribbled the ball well into Guy's territory, and then Key finished off the effort by making a splendid corkscrew run through a crowd of Hospital defenders and scored another unconverted try.

Just before the interval Allen picked up in the loose near midfield and, after side-stepping two opponents, passed to Dick, who raced up to the full-back and then managed to put on that extra burst of speed which carried him over the line for a really great try, which Kark just failed to convert.

Within two minutes of the second half, the home side hammered away at the Hospital line and a glorious solo effort by Key again carried him over the line for another unconverted try. Halamandres, in his effort to stop Key from crossing, received a nasty cut head and took no further part in the game.

Yerbury was taken out to fill the vacancy at full-back, and from then on the game developed into a fierce forward battle. However, the Hospital forwards, although outweighted, stuck to their task and invariably got the better of the scrums. In the loose they were well together and carried out many raids in spite of the gallant efforts of Wallis and Couchman, who were outstanding.

In the closing minutes it was anybody's game, and then a final effort by the Hospital nearly led to a score. The ball went loose and Dick, Fletcher and Nicholson dribbled on. Lambert saved the situation for the time being, but then Dick broke through on his own and was only prevented from scoring by Suter, who came across at great speed and brought off a magnificent tackle a few yards from the line.

Amidst great enthusiasm a well contested game ended in Guy's favour by the odd point.

Team.—C. Halamandres; D. M. Douglas, R. C. C. Dick, J. van A. Steytler, J. P. Crawford; R. D. Allen, K. A. Stanyon-Jaques; M. R. Kark, E. S. Nicholson, H. H. Crabb, E. R. Davies, E. B. French, R. O. Yerbury, C. S. Darke (Capt.), P. Fletcher.

Guy's v. Aberavon

ON Saturday, March 7th, our old friends Aberavon paid their return visit to Honor Oak Park and won fairly comfortably by 3 placed goals, a penalty goal and a try (21 points) to a try (3 points).

From the Hospital's point of view the game was disappointing, as they never appeared to have the combination of the visitors, who backed up each other admirably whenever an opening presented itself. Llewellyn, who was deputising for Halamandres, had a very poor day, but this may be due to the fact that he was heavily tackled early in the game when trying to stem a fine rush by the Welsh forwards. Incidentally, the Aberavon

forwards were magnificent; they were much heavier than the Guy's pack, and in the loose they were so much superior that they that they flung the ball about with rare abandon.

Chapman at scrum half was unable to fit in well with Allen, and the three-quarter line had few opportunities to carry out any combined movements. When Guy's did get the ball in the scrums it was so slow in coming out that Selby and Hopkins had no difficulty in preventing the Hospital from becoming dangerous.

Aberavon took the lead early in the game when, following a forward rush, Vickery picked up and, although tackled by two men, he forced his way over near the posts, for James to convert.

For a time play was fairly even, but Guy's reduced the lead after fifteen minutes' play when Allen dodged his way past several opponents before passing out to Dick, who swerved inwards and scored a great try, but Kark missed an easy kick at goal.

Aberavon pressed for some time and, just before half-time, a penalty awarded for obstruction in a line-out was taken by James, who kicked a magnificent goal from near the touch-line.

In the second half Guy's could not stand the pace, and with the visiting forwards playing a grand game, they gradually yielded to pressure, and within a few minutes Jenkins broke away, passed to Michael, who ran in for a try, which James converted.

Almost immediately afterwards Davies ran in on the left wing following a fine run by Sullivan and Hopkins.

For a time Guy's rallied and both Dick and Allen made desperate efforts to get through, but Randall Lewis and Hopkins were equal to the occasion and tackled magnificently.

Near the end Aberavon increased their substantial lead when Hopkins followed up a movement by the three-quarters and dashed over the line for a try, which James again converted.

The visitors thoroughly deserved their success. Hopkins, their fiy-half, was in great form, and was a continual source of trouble to the Hospital defence. Their forwards were a tireless set of workers, who controlled the ball admirably in their many attacks on the Hospital line.

Team.—O. P. Llewellyn; D. M. Douglas, R. C. S. Dick, J. van A. Steytler, J. L. G. Hartley; R. D. Allen, D. I. Chapman; M. R. Kark, E. S. Nicholson, H. H. Crabb, E. B. French, E. R. Davies, E. C. Sharp, R. O. Yerbury, M. Walt.

Inter-Hospitals' Cup—Semi-Final
Guy's v. St. Mary's

AT Richmond on Tuesday, March 10th, Guy's met St. Mary's once again, and, after a most exciting game, St. Mary's qualified to defend the trophy against St. Thomas's in the final round by a placed goal and 2 tries (11 points) to a penalty goal (3 points).

At the last moment C. S. Darke, the Hospital captain, was unable to take his place in the side as his injured leg was still troublesome. This was a great disappointment to Guy's, and even more so to Darke, who had played in practically every match since he came to the Hospital.

St. Mary's were a much heavier pack than Guy's, but in spite of this handicap Guy's got their fair share of the ball, but failed to heel as quickly and cleanly as their opponents. On the other hand, the St. Mary's wing forwards were exceedingly fast whenever the ball came out on the Guy's side of the scrum, and Stanyon-Jaques did exceedingly well to get the ball back as often as he did.

Bok, the St. Mary's scrum-half, was also in great form, and his judicious kicking and alertness was a great asset to his side.

The backs had very few chances as the marking and tackling was magnificent on both sides.

Before a large attendance Guy's, with the aid of a slight breeze, started very confidently, and several movements were attempted by the threes, but little ground was made until the forwards dribbled the ball to the St. Mary's 25, when Owen-Smith saved and sent Guy's back with a raking kick to touch.

Stanyon-Jaques, Allen, and Dick then combined beautifully in a movement which carried them some forty yards before Dick was tackled in possession. During the loose play that followed Guy's were awarded a penalty, and Kark, taking careful aim, only failed by inches to convert. This came as a shock to St. Mary's, who immediately warmed up and sent Guy's back to midfield.

However, another fine effort followed when Steytler broke clean through the centre, supported by the Hospital forwards. However, St. Mary's recovered very quickly and forced a scrum in front of the posts. Guy's heeled the ball, but Stanyon-Jaques was a trifle slow in getting the ball away and Hyson was so quickly on top of him that he had no chance to recover, and a fine opportunity went astray.

Following this let-off St. Mary's attacked splendidly, and, following a fine movement by the threes, Butterworth sailed along the right wing and, when faced by Halamandres, punted across

field, where Bok was waiting almost unmarked. The ball bounced very luckily, and Bok was over in a flash for a try which Owen-Smith failed to convert from an easy position.

Play was fairly even up to the interval, but, although Guy's tried hard to find an opening, they found a solid defence waiting for them.

The second half opened with both sides all out, and several exciting pieces of play followed. First Dick and then Allen tried to force their way through, and eventually C. G. Wright made a brilliant run before he was tackled by the full-back. Whilst going down for the ball in the loose, Stanyon-Jaques received a nasty kick on the hand, and this appeared to affect him for the rest of the game.

Gradually the St. Mary's forwards got the upper hand and, after working their way into Guy's territory, Owen-Smith obtained possession and found touch near the right-hand corner flag. In the scramble that followed, Talbot led a rush over the line, and Bok, ever on the alert, was up to touch down for another unconverted try.

After this reverse Guy's played up splendidly, and eventually were awarded a penalty some thirty yards out. M. R. Kark was again entrusted with the kick, and this time he kicked a magnificent goal, which roused the enthusiasm of the spectators to a high pitch.

It was now anybody's game, but very few exciting incidents followed, excepting two good runs on the left wing by Hartley and Butterworth respectively. Hartley was nearly successful in his effort, but the full-back caught him ten yards from the line and bowled him into touch.

Right on time Guy's were defending their line, and, following a scrum five yards out, Guy's heeled, but Talbot was round in a flash and pounced on the ball as it crossed the line. Kee had no difficulty in adding the goal points.

Team.—C. Halamandres; C. G. Wright (Capt.), R. C. S. Dick, J. van A. Steytler, J. L. G. Hartley; R. D. Allen, K. A. Stanyon-Jaques; M. R. Kark, E. S. Nicholson, H. H. Crabb, E. R. Davies, E. B. French, P. Fletcher, R. O. Yerbury, E. C. Sharp.

Guy's v. Bedford

VISITING Bedford on Saturday, March 14th, Guy's were heavily defeated by the home team by 2 placed goals and 6 tries (28 points) to nil.

Bedford, who have had a remarkably successful season, fielded their strongest available side and proved far too good for Guy's in every department. They were on the attack for most of the game, and Sime, their captain and scrum-half, was at the top of his form. Their pack, which contained several county men, were splendid, and were far too good for Guy's both in the scrums and lines-out.

Most of Bedford's tries were scored as the result of fine combination and backing up by forwards and backs. The first movement ended in Lytle crossing in the corner after some splendid passing between Power, Sime and Lytle.

A little later D. L. K. Milman crossed for an unconverted try after he had backed up a great run by Thevenard, and M. D. Milman added another after Lytle had made the opening for him.

Guy's never looked at all dangerous, and very seldom got near the home side's 25.

A long throw-out by Sime from a line-out found Thevenard unmarked. Thevenard, Power and Lythe went down the field practically unchallenged and a lucky bounce enabled Haynes to score easily.

From scrums close to the Guy's line Sime scored two tries himself and kicked two goals. The Hospital were now well beaten, and Lytle came across from the wing and sent in Thevenard for another try.

In the closing minutes D. L. K. Milman scored another try following a fine rush by the forwards.

Team.—C. Halamandres; D. M. Douglas, R. C. S. Dick, C. G. Wright (Capt.), J. L. G. Hartley; R. D. Allen, D. I. Chapman; M. R. Kark, E. S. Nicholson; H. H. Crabb, E. R. Davies, E. B. French, M. Walt, R. O. Yerbury, E. C. Sharp.

REPORT OF "C" XV, 1935-36

AT the end of their third year, the "C" XV are again able to look back upon a satisfactory season. More games have been won than lost, and it is pleasing to record that this was due to good team work rather than individual brilliance.

C. A. Chaundy has proved a most efficient leader of the pack, while M. A. Imray and J. M. Warner have done invaluable work in building the team as a whole.

Finally, we should like to congratulate D. M. Douglas and J. G. Hartley on their graduation to the First Fifteen.

The complete records of the season are as follows: Played, 24; Won, 15; drawn, 1; lost, 8; points for, 399; points against, 234.

G. S. J.

Boxing

THE Inter-Hospitals Boxing Competition was held at the Stadium Club on Tuesday, March 3rd, 1936, before a very large audience, and it was the most exciting hospitals' tournament for many years. St. Mary's, the holders, and London tied 20 points each, and Guy's next with 17 points.

The Guy's competitors gave a splendid exhibition, and, although at the last moment we were prevented from having representatives in the Feather-weight and Heavy-weight divisions, yet four of our competitors fought in finals and two were successful.

The standard of boxing was extremely good, and as the evening advanced the enthusiasm reached a high pitch.

The " star " of the evening was C. Halamandres. Although he had sustained a nasty scalp wound on the previous Saturday and had been slightly concussed, he retained his title of light-weight champion by a superb exhibition of boxing. In the final of his division he met Evans (Bart.'s), an extremely good boxer and quite the best opponent that Halamandres has met. The first round was very close, heavy punches being exchanged, but in the second round Halamandres, revealing his deeper knowledge of ringcraft and punching very powerfully, soon had Evans in a bad way, and the fight was stopped.

R. N. Lewis won the Fly-weight title for the Hospital, and his success is all the more praiseworthy because, until he was sent to Alf Hewitt three weeks before the competition, his boxing experience was nil. Hewitt has certainly done wonders with his protege, and Lewis shows great promise. His appearance in the semi-final against Ingoldby (London) will not readily be forgotten. Ingoldby displayed a stance that even " Alf " had omitted to explain to Lewis, and the fight was conducted to the accompaniment of one long roar from the audience. However, the attempts of Ingoldby to daze Lewis with his weird antics were not successful, and he was knocked out in the second round. In the final, Lewis beat Griffiths (St. Thomas's), again showing that he has a punch heavier than that usually possessed by fly-weights.

A. S. Lee had the misfortune to meet Muller (St. Mary's) in the final of the light-heavy-weight series, and was beaten in the first round. Muller, who is an Oxford " Blue," was too experienced for Lee, and punched with terrific power. Lee gave a magnificent display of pluck, and is to be congratulated on a splendid exhibition.

J. S. F. Watson lost to Warren (London) on points in the final of the middle-weight series. Warren, the holder of the title, and a very experienced boxer, was given a very hard fight. Watson attacked his opponent continuously, but could not prevent Warren from scoring with his left hand. In the last round Watson forced the pace, showing remarkable stamina, but his opponent held on to his points' lead.

A. Bloom lost to Scott (London) on points in the first series of the welter-weights. He gave a very game display, but against his fast-moving and hard-hitting opponent he did not have many opportunities for landing punches.

G. G. G. Rees lost to Arthurs (London) on points in the first series of the feather-weights. He was giving away weight to his opponent, but nevertheless gave a very spirited display. In the first two rounds he held his own very well, but tired in the final round, and Arthurs established a winning lead.

Ice Hockey

Guy's v. St. Thomas's

GUY'S had ample revenge at the Empress Stadium on Thursday, March 6th, for their previous defeat at the hands of St. Thomas's, winning by 4 goals to 1.

R. J. Simms scored all Guy's goals, but, though as prominent as usual, was able to rest on defence from time to time. The other attacks having improved sufficiently to be a menace to St. Thomas's goal, Praat was twice unlucky not to score.

Profiting from the experience gained in the last match, when St. Thomas's scored three times in the first half, Guy's started more strongly, and soon scored through Simms, who went through on his own and put in an oblique shot.

St. Thomas's defence now joined in attacking the Guy's goal, but the defence with Simms falling back and checking in the centre zone, held out, and then Simms secured the puck from behind the Guy's goal, outskated the defence, and scored magnificently.

St. Thomas's captain, Slater, took the puck up the ice and, after a scramble around goal, passed back to Doll, who scored. Two goals to one.

Simms now played defence with Macdonald, Pitt-Payne going off and the second line of attacks coming on. St. Thomas's now made a great effort, Mosley and Slater repeatedly attacking, but Guy's defence was still too strong and towards the end of the first period Lee, Praat and Ticehurst

were pressing hard and keeping St. Thomas's defence busy.

The second period opened with the original teams on the ice, and Simms again scored after a fast skate in from the right wing.

Guy's now played a three-man defence, and how they needed the extra man! Mosley and Slater attacked unceasingly, but vigorous checking by Pitt-Payne and Macdonald and a grand save by Groom from Mosley kept the two goals lead intact until Simms increased the lead with a shot from the blue line.

With Simms playing a defensive game, Ticehurst and Praat indulged in some passing, and Praat was twice unlucky not to score from well-judged "assists" by Ticehurst. One shot was saved by the goal-minder at short range, and the other bounced off the post with the goal open.

St. Thomas's made repeated efforts to reduce the lead, but with close marking on the wings and the constant threat of Guy's attacks restraining their defence, who had worked extremely hard both in attack and defence, the match ended with the score 4—1.

A third match to decide the unofficial hospitals' championship is to be played, probably on March 24th. This will be the last inter-hospital game this season, and it is hoped that more supporters will be present at the Empress Stadium.

It was noteworthy that the general standard of the Guy's players had improved enormously, the stick handling of Hancock and Ross being particularly good. Guy's were represented by :—

W. A. Groom; A. R. Macdonald, F. E. Pitt-Payne; R. J. Simms, L. T. Hancock, I. Ross; J. Lee, T. N. Praat, L. Ticehurst, J. B. Gayes.

A second team match, the return of the match played on February 1st when Guy's and St. Thomas's drew one goal all, was played on Tuesday, March 10th.

The United Hospitals have had a fixture offered to them by Sussex, to be played at Brighton. It is hoped to take advantage of this and to arrange other matches for a United Hospitals' team.

Hospital Information, etc.

Notice

Messrs. Down Bros. have asked us to state that they have been awarded the Medal at the Exhibition in connection with the 10th International Congress of Surgery, Cairo, in December last.

NURSES' DANCE

By kind permission of the House Committee a Dance will be held in the Nurses' Home on Monday, March 30th, at 8 p.m. Tickets, 3*s*. 6*d*.

The proceeds will be given jointly to the Musical and Swimming Societies.

Tickets may be obtained from Nurse Palmer-Roberts or Staff Nurse in the Front Surgery and Out-Patient Department.

Pass List

CONJOINT EXAMINATION.
D.P.M.
December, 1935.
PARTS I and II.
J. L. Bates.

Papers by Guy's Men

Ernest Matthews. A tour of American dental schools. *Brit. Dent. Jour.*, 1936, lx, 219.

W. Sampson Handley. Paralytic ileus in acute appendicitis. *Clin. Jour.*, 1936, lxv, 89.

Nils L. Eckhoff. Diseases of the gall bladder. *Clin. Jour.*, 1936, lxv, 115.

G. B. Palmer. Polyneuritis following evipan. *New Zealand Med. Jour.*, 1936, xxxv, 21.

Arthur H. Douthwaite. Treatment of osteo-arthritis. *Med. Press*, 1936, cxcii, 232.

Maurice E. Shaw. Medical facts and fallacies. *Brit. Med. Jour.*, 1936, i, 515.

E. P. Poulton and T. W. Adams. Oxygen tents and nasal catheters. *Brit. Med. Jour.*, 1936, i, 567.

A. A. Osman. Treatment of B. coli pyelitis with alkalis. *Brit. Med. Jour.*, 1936, i, 575.

Appointments

T. F. Todd appointed Honorary Assistant Gynæcologist to the Salford Royal Hospital.

J. L. Bates appointed House Physician, Newcastle General Hospital, Westgate Road, Newcastle-on-Tyne.

Changes of Address

H. L. Peregrine, H.M.S. *Osprey*, Portland, Dorset.

J. L. Bates, Newcastle General Hospital, Westgate Road, Newcastle-on-Tyne.

T. F. Todd, 28, St. John Street, Manchester 3.

Lionel Prall, 115, Maida Vale, W.9. *Maida Vale* 4352.

Leslie D. Wright, 8, Cavendish Place, W.1. *Langham* 1097.

Birth

WISEMAN.—On March 4th, 1936, to Mary (née Faulks), at Wollongong, Australia—a daughter.

Death

WASON.—On March 16th, 1936, at Lichfield, Clevedon, Richard Llewhellin Wason, M.R.C.S., L.R.C.P.Lond., eldest son of the late J. E. F. and Annie Wason, and beloved husband of Mary Kathleen Wason.

EDS. { P. W. C. / M. A. P.

GUY'S HOSPITAL GAZETTE

A Journal of Medicine, Surgery, Dentistry and Hospital News.

PUBLISHED FORTNIGHTLY.

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PASSIM

ONE of our many critics amongst the eminent, a throat specialist, remarked to us last week, in ringing tones, that "there were two things at Guy's which had always been bad—one was the College and the other was the *Gazette*. In my own opinion the College, at the moment, has never been better, nor the *Gazette* worse."

We are used to the opinion about ourselves, but we greatly deprecate this attitude towards the College. It is a bad one, and far too many are, far too often, lulled into a false sense of contentment, and of satisfaction, with makeshift projects which prolong the general toleration of affairs which demand instant attention.

Since our last number we are glad to hear that, with the return of the secretary, Mr. A. R. Clarke, the Clubs' Union Council have met and taken some immediate steps to improve the Students' Club quarters. Further, a sub-committee has been formed to consider proposals for enlarging and rebuilding the Students' Club and possibly also the College. This sub-committee, probably in conjunction with another of the Medical School Council, will discuss the practicability of the various proposals which have been put forward. Of these, the complete rebuilding of the College and Students' Club, or the enlargement and improvement of the Students' Club within the confines of the present College, are the two chief. The first appears likely to cost more than could be raised by subscription without clashing with a possible forthcoming appeal for the Hospital; about £70,000 would be needed. The second leaves untouched one-half of the problem—the residential quarters. These are not the responsibility of the Clubs' Union, but of the Medical School and the Hospital. The second scheme is partly a makeshift, and its cost would be comparatively small. There is no doubt that this measure will receive hearty support, provided that it is clearly understood that it is only a temporary one, until funds can be raised for more radical improvement.

In the meantime the Students' Club have been given £100 more than the £200 for which they applied, and a start has been made on some urgent improvements in the decoration and furniture. Amongst the first to receive attention are to be the leather couches in the "Spit," whose appearance, we were told, had an electrical effect on members of the Clubs' Union Council when in the nocturnal quiet they made a personal tour of the Students' Club. That there remained anybody at the Hospital so little inured to dinginess as to be shocked by these familiar atrocities amazed and delighted us.

THE Conjoint regulations have recently been altered, and the changes will affect all those who start sitting their Finals after October, 1936. Those who are due to start their Final Conjoint Examination in October will proceed as before, for their schedules will be in by September. Subsequently, however, it will no longer be possible to begin the Finals twenty-four months after the start of clinical studies. Under the new regulations twenty-seven months must pass before the first examination is taken, and, as at present, the last may not be sat until thirty-three months after the beginning of the "Pre-Clinical" appointment.

These new regulations have necessitated another change in the order in which appointments are to be held. It is only two years since the order was: second three months medical ward clerk, free period, senior dresser, gynæcological dresser, children and extern. The Pathology examination, the first of the Finals, came at the end of the gynæcological appointment, and tended to interfere with the study of midwifery and gynæcology proper to the time. Under the present system, at twenty-four months, when he is finishing the free period and before starting senior dresser, the

student is signed up for both midwifery and pathology, and may read for these subjects together during an appointment when ward work is at a minimum.

Unless some change were made these two examinations would in future have to be taken at the end of the Senior Dresser appointment, during which the student may be very busy indeed. To avoid this, the order of these two appointments is to be interchanged. There is little doubt that senior dressers, without having done Eyes, Skins or V.D.'s, will not benefit to the same degree from experience in the Surgery. There is equally little doubt that they would be worse off if the present order were preserved under the new regulations.

It is expected that over forty will start the Pre-Clinical appointment on April 16th, and that there will be nearly as many again on July 16th. The average size of the class in October and January this year has been ten. This disparity necessarily reacts to the detriment of those in the larger classes, and the difference in attention in teaching that can be given to individuals is apparent from the first appointment. As an example, it was possible to provide the smaller classes with some very valuable experience in venepuncture, but neither the necessary material nor the supervision is possible in the larger ones.

The Medical School Office is able, by varying the order in which the students take the immediately subsequent appointments, to produce firms of roughly uniform size for the first year in the wards. In the later appointments this can no longer be done, and the disadvantages of belonging to a large group becomes more and more marked, until at the end of the clinical period only a minority can do the selective appointments of clerk to the Departments of Tuberculosis and Nervous Diseases.

The causes of this uneven distribution, although open to correction, lie outside our control. The London M.B. is now taken by 100 per cent. of entrants to the Medical School, and the University holds its examination in Anatomy and Physiology in March and June only. Overcrowding in the following Pre-Clinical periods is inevitable, and more likely to increase than diminish while there is no second M.B. examination in December.

There are other reasons for having a Second M.B. examination at that period, but this, in part artificial, overcrowding, which must be common to the other London Schools, is not the least.

▭

WE congratulate the Hospital Hare-and-Hound team on winning the United Hospitals' Cross-Country Championship. It is ten years or more since we lost the Kent Hughes Trophy, which we used to hold consistently, and its return here is very welcome.

On Saturday, May 2nd, the Hospital Athletic Club will hold its annual meeting. It is hoped that this function will be well supported, as the team to represent the Hospital at the London University Sports is selected on these results. Last year the Hospital won the Inter-Hospitals' Athletic Shield, and a great effort is being made to retain it.

At Honor Oak Park the Clubs' Union continues to make improvements in the Ground, which is probably now the best possessed by a London hospital. In a fortnight every hard court will have a new *en tout cas* surface and be ready for play. The drainage for the recent additions to the ground will then also be completed, and these fresh fields be available for use.

▭

WE congratulate the following on their appointment to Clinical; of that ancient and honourable order it appears certain that they shall be the last :—

Mr. J. M. Brown.	Mr. H. E. W. Hardenberg.
Mr. G. D. Channell.	Mr. A. G. W. Hill.
Mr. J. A. T. Griffiths.	Mr. W. M. Philip.

▭

AMONG our congratulations we must not leave out the Ladies' Association, who have reached a limit of free thinking and freedom from prejudice which astonishes and almost shocks us. They offered as second prize to a table at a recent bridge afternoon a free treatment from an osteopath and manipulator, resident in Chandos Street. We hope that the recipient duly enjoyed a few rhythmic titillations on the spine.

▭

THE following problem and its solution, reprinted from a daily contemporary, may be of interest to some of our readers :—

"Dear Dorothy Dix,—Please help me. I am a hospital nurse on night duty, and one of the doctors has been coming to see me for several nights to have a chat.

"Dare I take him seriously, or is he playing with me? The other night nurses are talking about me, and I must do something quickly if I am to keep my good name.

"NOVICE."

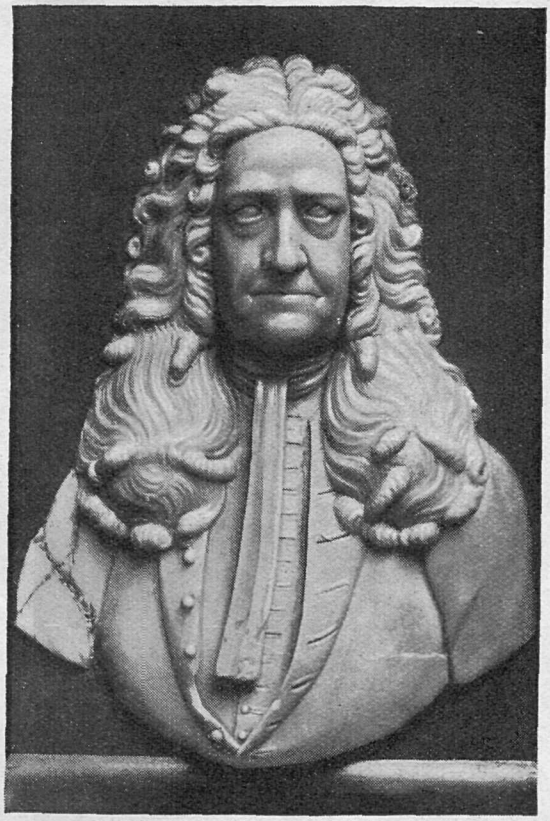
Answer :—

"It is very unwise of you to allow this doctor to come and see you, and I strongly advise you to consider your good name. Conduct of this sort is one of the unforgivable sins in hospitals. It is quite probable he is only amusing himself with you."

A New Portrait of Thomas Guy

IN *The Times* of Friday, March 13th, 1936, there was a reproduction of an ivory portrait which has recently been acquired by the Victoria and Albert Museum, stated to be a portrait of Thomas Guy by Le Marchand, a well-known carver in ivory who died in 1726. As I had never heard of any such portrait of Thomas Guy, I went and saw the Director of the Victoria and Albert Museum, who referred me to Miss Longhurst, who is in charge of the ivories. She told me that the ivory had just been presented to the Museum, and had been bought at a sale in London because it was by Le Marchand, without any idea as to whom it might represent. When it came to the Museum Miss Longhurst remembered a wax which had been sent to the Museum a year or two previously for repair, and which had been photographed. On comparing the photograph of the wax with the ivory she found that they were identical, and as she had been informed that the wax was a portrait of Thomas Guy, she identified the ivory also as a portrait of Thomas Guy, and it is so labelled in the Museum.

The wax portrait belongs to Sir Frederick Cripps, of Cirencester. After seeing the photograph I remembered an old engraving which hangs in my office, and on looking at this engraving I found that it was stated to be Thomas Guy, from a *model in wax* "by his friend F. Le Pipre." I sent this engraving to Miss Longhurst, and she promised to make inquiries from Sir Frederick Cripps as to how he obtained possession of the wax.

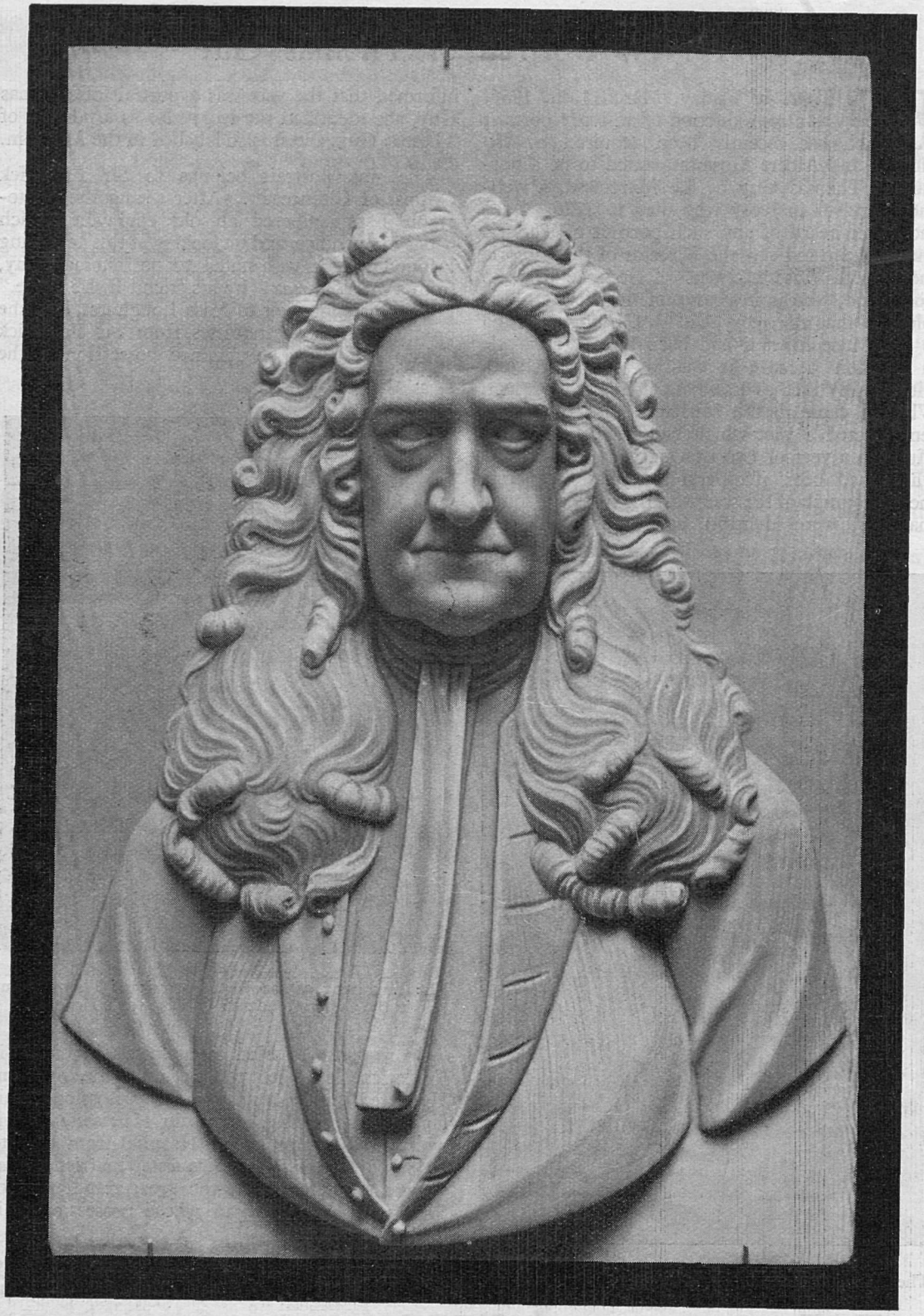


The Wax Portrait of Thomas Guy, in the possession of Sir Frederick Cripps of Cirencester.

The Engraving of the Wax Portrait of Thomas Guy in the Superintendent's Office, Guy's Hospital.

In response to Miss Longhurst's inquiry, Sir Frederick Cripps sent the wax up to the Museum. He stated that it came into the possession of his family through Mr. Benjamin Harrison, Junior, who was Treasurer to the Hospital from 1797 to 1848. Benjamin Harrison's sister married a Mr. Cripps, of Cirencester, the great-grandfather of Sir Frederick Cripps, in whose possession it is to-day.

I have seen the wax medallion and the ivory, and the wax is an exact replica of the ivory, and



The Ivory of Thomas Guy by Le Marchand in the Victoria and Albert Museum

is most probably a cast in wax of it, as the wax is apparently very slightly larger than the ivory, and this enlargement would be produced by taking a plaster cast of the ivory and then making a wax from the cast. The engraving in my office, though a bad one, is obviously of a wax identical with the ivory.

It is quite clear that the wax was a portrait of Thomas Guy, as it came to the Cripps family from Benjamin Harrison himself. The identification of the ivory as being a portrait of Thomas Guy is undoubtedly correct, and it is due to the acumen of Miss Longhurst at the Victoria and Albert Museum in recognising its likeness to a wax she had seen a year or two previously.

Sir Frederick Cripps also has in his possession a wax of the tomb of Thomas Guy in the Hospital Chapel. This is labelled "J.T. 1831," and is, therefore, obviously the work of Joseph Towne.

H.L.E.

The Investigation of a Urinary Case

A Clinical Lecture delivered at Guy's Hospital on Monday, January 13th, 1936, by A. Ralph Thompson, Esq., F.R.C.S.

GENTLEMEN,—In the Genito-Urinary Department I notice that a great number of people are allowed to come into the Department and students seldom look at and note their general appearance or study the demeanour or manner of the patient. You might remember, with advantage, that the young man may be a most difficult patient for the purposes of examination, and in fact such examination should frequently be adjourned until the dresser has gained the complete confidence of the patient. And this remark is applicable especially to examinations by means of instruments.

That remark at once brings us to a consideration of the nomenclature of instruments used in the examination and the treatment of urethral and vesical conditions.

There are three instruments in common use: a catheter, a bougie, and a sound. A catheter is a hollow tube which is intended for the purpose of drawing off urine from the bladder. Incidentally, in order to do this it must go through the urethra, and therefore if there is a stricture it must pass through this also. But a catheter, though it may be used for the double purpose of drawing off urine after passing a stricture, is not primarily an instrument for treating urethral conditions. A bougie is a solid instrument for diagnosing and treating urethral conditions; here, again, most commonly that of a stricture. Incidentally, in order that there may be certainty that the stricture has been passed, it should enter the bladder, but it is not an instrument for examining the bladder with. A metal bougie has a big curve, and you make an examination of the bladder an exceedingly painful thing if you use a bougie for the purpose. Catheters and bougies are made of some soft material, such as indiarubber—which I detest—or caoutchouc—which I prefer—or metal, which for catheters I do not like. But if bougies are made of metal I prefer them to any other form of instrument. I do not like metal tubes, but I like a metal solid instrument. With regard to metal instruments, remember that the bougie associated with the name of the late Mr. Clutton, of St. Thomas's Hospital, is, in my opinion, much the best of all. Lord Lister also brought out a like bougie, which I do not like. A sound is an instrument for the examination, or sounding, of the bladder. It must go through the urethra, but it is not an instrument for dealing with the urethra; in fact, for this latter purpose I can hardly imagine a worse instrument. Nevertheless, I still see and hear the term used, both by general and, I regret to say, some misguided special surgeons. Naturally it is made of metal.

Before using any instrument upon a patient you must always make a preliminary physical examintion. The patient should be in a recumbent position and should not be exposed to cold draughts. You will glance at the penis and the suprapubic region in order to make sure of the anatomy of the condition for which the patient seeks advice. Thus the patient may have a small meatus, which is an important point, because if you fail to get through this the patient will not have much confidence in your ability to treat him further. Never pass an instrument too large for the meatal opening; such a proceeding is always attended with great pain and, maybe, shock. I remember doing a lithotomy, with Sir Francis Shipway giving the anæsthetic. The meatus was not large enough to take the lithotrite, and in going through the meatus there was a very great deal of shock, even though the anæsthetic was being given by a master of the art of anæsthesia. Or a swelling of the bladder distended with urine may be visible; in stout, well-built people such a swelling is sagitally ovoid in shape, and usually lies accurately adjacent to and in the mid-line.

In thin people, or under an anæsthetic, a distended bladder will cause an ovoid swelling, transverse in direction, separated by about an inch from the top of the pubic arch. This swelling is also transverse in its visible long axis.

Palpation of the bladder is useful, especially where it is not visible, and for this purpose you may have to press deeply into the pelvis, and you will then find it, as it were, filling up this cavity. The bladder cannot be felt except you realise that there is something which is filling up the cavity of the pelvis.

With regard to percussion, you may be led astray if you rely on the text-books of anatomy and surgery in relation to this. A distended bladder may be associated with a dull note on percussion, but quite as frequently it is associated with a resonant note. It is really a very simple matter: has the bladder distended in front of the intestines, or has it distended behind them? If in front, the percussion note is dull; if it is distended behind them there may be a resonant note. But I suppose intestines do not always give a resonant note, so be careful what you deduce from percussion. I dislike to see a dresser percussing over the bladder region, getting busy with an examination which will probably tell him very little. Palpation and visibility will give you a better idea of a distended bladder than percussion ever will, and especially as the bladder may sag over to one side, usually the right side, owing, I think, to the presence of the left-sided sigmoid. Or there may be a sacculus of the bladder, which may be felt to one or other side of it. Such a sacculus may not be emptied when urine is drawn off from the bladder, but as a rule it is emptied. Remember that a sacculus may produce a swelling which is, apparently, not in connection with the main swelling of the bladder. You may feel a longitudinal bladder; why this is not felt more often I do not know. The most common swelling is a transverse one above the pubes, separated by a hollow above the pubes. I am not saying much about percussion; it is one of the useless things which the average student knows so much about that he puts it down in answer to questions and misleads the examiner into thinking he knows something about the bladder.

It is important to know whether the bladder is distended or not, as distention may mean retention of urine, and if, at Out-Patients, you cannot relieve distention, you will have to take the patient in. But if the patient is passing his water fairly well and has not got retention, however impassable a stricture may be, you need not take him into the hospital as an urgent case.

Having determined the state of the bladder, you will now examine the penis and urethra externally to see if there is a local condition, such as a narrow meatus, either congenital or acquired, or a local inflammation in the perineum. Such local inflammation may lead to the formation of a very hard sausage-shaped swelling, which may be so hard as to simulate a malignant neoplasm. In the early days of the Department, when I returned from my summer holiday, I was told, "We have a magnificent case of sarcoma of the perineum for you," and I replied, "Have it up in the theatre and let us incise it and let the pus out"! I may not have an opportunity of mentioning it to you again, but do remember that in certain positions abscesses may do what the Borough woman says they do, that is, "disappear inwardly." Axillary abscesses, at first local, in the old days used frequently to lead to cellulitis. A perineal abscess may burst, not externally, but may suddenly set up a cellulitis, and if that is not "bursting internally" I do not know what is. I have not seen one case of malignant tumour of the perineum in 25 years of experience. The penis may be the seat of a local thrombosis in a small portion of the cavernous tissue. Such a swelling is smooth and globular, and is distinctly limited in size. Another swelling I have seen in connection with the penis is a localised sacculus of the urethra. In the case I have seen the sacculus was lined with normal mucous membrane, and its cavity would have contained a normal horse-chestnut seed. It was dissected out by my house surgeon, Mr. Mellon, and a cure resulted.

You read a lot about extravasation of urine. The accounts of this are copied from book to book, not only from generation to generation, but for hundreds of years. Urine is only very rarely extravasated. Whoever found urine inside a swelling? It is only a spreading cellulitis; the fluid is not urine, it is serous fluid. That is another feature which I wish anatomists would correct in their books.

Now with regard to rectal examination. This is undertaken to get evidence of an enlarged prostate. You must always examine along back, front and sides of the rectum, and must not be content with an anterior examination only, as in cases of cancer of that organ the disease may spread round the back of the rectum, and if a posterior examination is not made, an incorrect diagnosis may result. It is discouraging to cut down on such a malignant prostate and then to find that the condition is inoperable, and this might have been avoided if the rectum had been thoroughly examined. Whenever sciatica is complained of, be particularly careful to examine the

posterior part of the rectum, as in those cases the sacral plexus may be involved by the malignant growth, and sciatica results. Remember that the anal canal is directed downwards and backwards, and when you pass the finger up the rectum to examine the prostate you may be led astray by one important feature; you may get a normal prostate lying against the tip of your finger, and you are liable to make the mistake of thinking that a prominent prostate is a large prostate. A prominent man is not necessarily a great man. On the other hand, it is conceivable you may pass a large prostate without recognition as it does not project prominently into the rectum. After the anal canal has been reached, the rectum makes a distinct curve backwards, and it is in this region that malignant disease may occur, and make the case inoperable from the point of view of getting rid of the disease. It was not until I began to make an examination of the posterior and lateral aspects of the rectum in these cases of enlarged prostate that I could reconcile the rectum of the anatomists with the rectum of the surgeons.

Prostatic abscess may occur, and the patient with this usually has so much pain and tenderness as to preclude him from sitting on a chair except at its extreme edge. When such a patient is ill and has a high temperature, rectal examination should be carried out very cautiously, as it is very painful to him. A very important point comes in here: in cases of perinephritis it is important for you to make an examination of the prostate region. The prostate is not surrounded by anything except the thinnest cellular tissue. Even when I was a medical student I doubted the alleged fascial covering of the prostate. There may be a suppurative perinephritis before the kidney tissue is reached. Inflammation of the prostate may spread along lymphatics to the wall of the ureter, and thence to the cellular tissue which surrounds the kidneys, so producing suppurative perinephritis. It is, in fact, a stage in the production of ascending nephritis. It might stop at any time, so why not make it stop as soon as possible? Examine the prostate, and if it is the seat of inflammation, incise it. I raise the point now because we are discussing the anatomy of the prostate. Do not deal with perinephritis until you have made an adequate local examination of the prostate per rectum.

Having excluded the prostate as a cause of the urinary trouble, you will now examine for local urethral conditions, such as stricture—meatal, traumatic, gonorrhœal and, especially in children, impacted urethral calculus, and congenital conditions such as pin-hole meatus or a small hypospadic opening leading to urinary trouble. I have been teaching about congenital deformities of penis and bladder for 30 years, and I had a letter not long ago from a man—I hope he is not a London man; I am sure he is not a Guy's man—who uses the term "pseudo-epispadias." Evidently he did not know what epispadias was. There is a condition in which the opening is on the under surface of the penis, and that is hypospadias, and when the opening is on the dorsum it is called epispadias. It is either epispadias or it is not; it cannot be pseudo-epispadias. In the case of hypospadias not only the position of the opening may be abnormal, but there may be more than one opening; so be sure you identify the right one.

Locomotor ataxy is another great cause of retention of urine, and retention may be the first sign of that disease. But that does not preclude you from examining for other signs of tabes. There will be the gait of the patient, and his inability to turn round suddenly, or stand erect with his eyes closed; there are also the Argyll-Robertson pupils and absent knee-jerks. And I have noticed that patients with this disease have steel-blue eyes. The error one is liable to fall into in cases of supposed stricture is due to the induction of a spasm in the urethral submucous muscle and the consequent spasmodic narrowing of the urethral passage. Such a spasm may simulate a stricture due to fibrous tissue formation. It occurs, as a rule, not more than five or six inches from the meatus, and so is not so deeply situated as in the usual type of gonorrhœal stricture. With regard to stone, I have only seen one or two cases producing retention, and the trouble may be due to the accompanying inflammation. I have seen one case of voluntary retention. You will not remember the old days when the Suffragette movement was rampant. The only way these women could be prevented from having themselves fastened to public men's residences by chains and staying there for hours was to throw water on them, and it was found that they could not endure the suggestion that they had wetted themselves. One man had what was considered to be voluntary retention, and his bladder reached up to the navel. There were slight symptoms of locomotor ataxy, but so slight that, in view of the history we obtained, we can dismiss that idea. He was charged with behaving indecently with other men. He was attending Mr. Lloyd's outpatient department, and he thought he might as well have a voluntary retention. He was discharged, as two policemen contradicted each other.

You will now examine for stricture. The error we are liable to fall into here is that a spasm of the urethral submucous muscle may appear like an

organic stricture. Passing an instrument roughly may cause spasm of that muscle. Usually that narrowing is five or six inches from the meatus, and therefore not so deeply situated as a gonorrhœal stricture or the form associated with a bursting fracture of the pelvis. I should place a man who talks about multiple strictures—for ignorance—with the man who talks about a fibrous prostate. To talk about the latter means he never got the prostate out at all, and that he was busy with the vesiculæ seminales. There is a very useful instrument, known as Guyon's bougie. Guyon was a Frenchman, who held somewhat the same position in Paris as Sir Henry Thompson held in London in these matters forty years ago. It has an olive-shaped end and a thin shaft. It is important when you come to the consideration of strictures that you should know their positions and their length. You pass the olive end down to the stricture, the blunt end will stop you at the stricture. Then take the instrument out and measure the distance from the olive-shaped end to where the instrument is lying against the meatus in the normal hanging position. Then you introduce this conical-shaped end through the stricture. Then pull it back so that the conical base ends against the stricture. Then measure from the meatus to the base of the cone. I am always doubtful about measurements of the body, especially when expressed in millimetres under X-rays. But it is important to be accurate in the measurements I have spoken of. The advice I would offer when you are compelled to pass an instrument in cases of suspected stricture, with retention of urine, is to pass a small olive-headed catheter very gently, and leave it in the bladder. A former house surgeon, Mr. Berry, who is now in New Zealand, once took a catheter out in order to show dressers how easy it was to pass it again, but he never did pass it again; I had to pass it. If you find it necessary to give an anæsthetic for instrumentation, do not use too large an instrument, taking advantage of the anæsthesia; never do under an anæsthetic more than you would reasonably do without it. If you break this rule the patient may have nervous suppression of urine and die, despite all your efforts. And that is always a pity, because, apart from the retention, the patient may not have been very ill.

Now we shall consider examination for suspected bladder conditions. You will notice the bloodless aspect of a patient who has been bleeding a good deal, and if you remember my rule that the commonest cause of bleeding from the urinary organs is a bladder papilloma, you will be careful not to pass an instrument until you have stopped the bleeding. If you make an instrumental examination through the urethra for suspected bladder growth, you may increase the hæmorrhage, with even fatal results. And if that bleeding from the bladder is severe you will not be able to see enough to enable you to make an honest diagnosis. You must not wash out the bladder through a catheter. What you have to do is to give large doses of laudanum. Place the patient on a light diet, and do not let him see many friends. You will not inject adrenalin into the bladder. I have known a surgeon who injected adrenalin under an anæsthetic for a growth of the bladder, and the patient died at once. As a rule, in these cases pituitrin is of little value. If the patient does not sleep well and is restless, aspirin may be administered. One medical man said he thought aspirin increased the hæmorrhage from a bladder growth. Having stopped the hæmorrhage, let the patient wait two or three days so that he can recover from the effects of it, and lessen the risk of sepsis, which is very real in vesical neoplasm. You must always consider the possibility of sepsis and ascending nephritis.

Now we come to cystoscopic examination. Having introduced a cystoscope into the bladder, which should hold 6 ounces, you will identify first the bubble of air which has been, practically of necessity, introduced into the bladder. This is situated at the highest level of the cavity of the bladder, and its surface reflects the light in the lamp of the cystoscope. Its edges should be circular and sharp; sometimes they are irregular and blunt, and such an irregular bubble may simulate a growth and so lead to a wrong diagnosis. But a growth is hardly ever situated in this region; in fact, I cannot recall a single case of primary papilloma of the bladder occurring in this region, though I have seen a recurrent papilloma and a malignant neoplasm occur here. The usual place for papilloma is at that point of the bladder wall against which the urine is expelled from each ureteric orifice, namely, above and to the outside of the ureter. But a papilloma may be so transparent that it is missed altogether. That matter of the point at which the urine impinges being the seat of papilloma is one which it might be well to research about. Mr. Barrington, of University College Hospital, and myself both failed to find a papilloma until after half a dozen examinations for what we both felt must be present. In another case, that of a female, Mr. Cook and Dr. Iredell both looked down the urethroscope, as well as myself, and we could not see any sign of a growth. I injected a weak solution of silver nitrate into the bladder, and this rendered opaque and visible two papillomata in

the bladder wall, one of them in the situation I have mentioned as a usual one, and the other nearer the middle line. These were diathermised, and so far—nine years afterwards—have not recurred. In this case there was afforded a most interesting appearance of the vital process of hæmorrhage ceasing naturally. Evidence of a growth having been passed by the patient was afforded by the history, and the blood vessels were normal, except that they terminated in club-shaped ends, which were clots in the vessels. That is how bleeding ceases.

Another cause of bleeding from the bladder is malignant disease, but here I do not think it is such an invariable symptom as in papilloma. Hæmorrhage may be important in itself, and also in the fact that it signifies solution of continuity of the urinary mucous membrane, and, sooner or later, sepsis, with ascending nephritis, and the latter usually means death. When hæmorrhage comes from the kidney it can be seen coming from one or other ureteric orifice, or a vermicular clot may be seen lying at the orifice. It may be impossible, owing to blood, to carry out a reasonable examination of the bladder, but kidney hæmorrhage should not thus prevent cystoscopy. The bleeding from the kidney is in jets, and the bladder may be sufficiently clear between jets to enable an examination to be made.

Before speaking of examination of the urine, let us proceed to the clinical investigation of the kidneys in a urinary case. I never blame a student for not feeling a kidney, and I always defer to a student who says he can feel one. The pelvis of the kidney lies opposite the last rib on each side; the kidneys are situated higher up than many people conceive, for the pelvis of the kidney lies opposite the last rib. If you put one hand behind the abdomen and the other in front you can feel it with the front surface of the fingers, not with the points of the fingers. Feeling with the points of the fingers can easily induce spasm. A kidney may appear to be felt all the time. Teachers and students may have a shrewd belief that a kidney is enlarged and painful when a resisting muscle may be answerable for the impression. The kidney may descend between the examining hands, or it may seem to come down into the hands. Or the kidney may slip up at each respiration. It is most useful to have the patient sitting up on a couch and grasping with his hands the instep and arch of his foot. The rectus muscle is acting strongly when the grasp is made, but when the rectus is relaxed you can feel the kidney well. It is a method which, I think, medical ward clerks might well adopt for examining renal swellings.

One or two points in connection with the X-ray picture. If you get a shadow behind the pubes, the opacity is stone in the prostate. A stone in the bladder lies a full inch above the brim of the pubes. You must confirm this with the sound, and if the sound examination is positive, the stone is in the bladder. If you are certain a stone is there and you cannot feel it, it is in a prolapsed ureter. An increased opacity in the position of the last rib should make it certain that there is a stone in the pelvis of the normal kidney. Why do you see a shadow lower down? In such an event you may be sure it is a stone in an enlarged kidney.

(*To be continued.*)

Immediate Dentures

A Paper read before the Guy's Hospital Dental Society on Tuesday, 3rd March, 1936, by H. C. Davis, Esq.

MR. PRESIDENT and GENTLEMEN,—In thinking over some possible subjects for a short paper, and being determined that my subject should be of an intensely practical nature, I finally decided on a brief discussion about Immediate Dentures, and for two reasons: Firstly, because in the present Hospital curriculum the student is left almost wholly ignorant of the subject; he may extract teeth, achieve daring alveolectomies, and possibly even construct an immediate denture, but never will all these feats be performed upon the same patient, so that he has no real conception of what an immediate denture service involves. And secondly, because I am convinced that the ability to make good immediate restorations is a tremendously important factor in successful practice-building. The layman is always relieved to avoid the dreaded "gummy" period, and greatly improved by the dramatic nature of the proceedings.

Let us consider some of the advantages gained by immediate restoration.

1. The whole of that miserable period of hibernation is cut out during which the digestion

is impaired through eating slops and the self-respect shattered by the increasingly wretched appearance produced by the loss of teeth.

2. It is possible to maintain the exact facial contour, the exact position of each tooth in the arch, the correct occlusion, and therefore the correct muscular balance and condylar movement.

3. The change from natural to artificial teeth is made so easily that the patient very rapidly becomes used to them, and is far less conscious of a sensation of bulkiness and strangeness.

4. Healing is rapid and absorption more uniform and very much less extensive, so that the ultimate condition of the ridges is far more satisfactory than is likely to result when, the teeth having been extracted, the ridges are allowed to look after themselves haphazardly for two or three months.

5. By killing two birds with one stone, the patient is less reluctant to lose grossly septic teeth when he knows that extraction and restoration will be one and the same operation.

As regards the actual surgical and mechanical procedures, we must distinguish between partial and complete restorations.

Concerning partial restorations, these cases are confined to the six upper front teeth, where one or more teeth have to be removed as a result, say, of a blow or apical infection, or gallant, but ineffectual, apicectomy.

At the first visit an upper impression is taken, and for this I think the most suitable impression material is dentocoll. Incidentally, it is not essential to have a special perforated dentocoll tray for this purpose. A standard box tray serves equally well if a few dabs of hot compo are placed on the inner surface of the tray immediately before filling the tray with the dentocoll at its required consistency. When there are excessive undercuts or unduly prominent teeth, it is a good idea actually to grease the tray, remove it first, and then remove the sides of the impression and the palate separately. An impression of the lower teeth is also taken and the relation of the upper and lower incisors noted; the shade and mould of the teeth to be extracted are accurately registered and the patient can then be dismissed.

The impression should be cast at once if in dentocoll, and the models articulated.

Where one tooth is to be extracted, the correct tooth should be cut off the model and trimmed to the gum level, the direction of the root judged as accurately as possible on the model, and the plaster then scooped out to the depth of about one-eighth of an inch; this will represent the socket of the tooth to be extracted, and the artificial tooth must be of sufficient length to fit right up into this plaster socket. The tooth is then stoned to an exact replica of the original and the case waxed up and finished. Satisfactory retention is obtained by means of suitable clasps, the designing of which will depend upon the individual case.

At the second visit the tooth or teeth are extracted, preferably under a local anæsthetic, as the inevitable easing required in a partial case is made much easier when the tissues are anæsthetised. It is advisable to place the denture in 2 per cent. lysol for half an hour or so before insertion, and the patient should be instructed to keep it in for 48 hours. It may then be removed by the dental surgeon, thoroughly cleaned, any further adjustments made, and the patient instructed in its removal and insertion.

From time to time the neck of the tooth should be shortened as the socket fills, and, when healing is complete, a new denture may be made if in vulcanite, or new facings put on if in stainless steel or gold. Two points to remember are :—

1. The importance of accurately judging the position of the socket on the model, as it is maddening to find that after extraction the artificial substitute fails to fit nicely up into the socket and has to be discarded, or is so ground that the joy of a perfect æsthetic result is destroyed. I personally think that whenever possible you yourself should cut the teeth off the model and carve out the sockets to your own requirements and from your own observation of the mouth.

2. If the extraction is done under a local infiltration anæsthetic, the swelling of the tissues, particularly in the palate, may prevent the denture from fitting accurately at first. It should not be eased indiscriminately, as any adjustment can be made when the patient returns later.

The first three pictures will illustrate what I have been saying :—

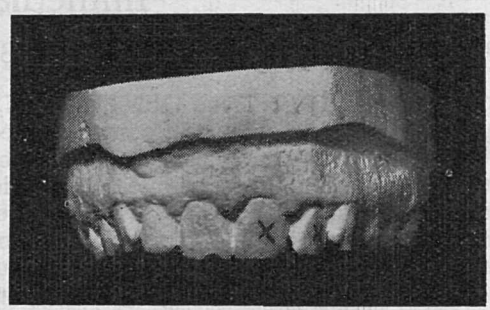


Fig. 1.—The upper arch of a girl of sixteen whose left central and lateral are to be removed as a result of chronic apical infection.

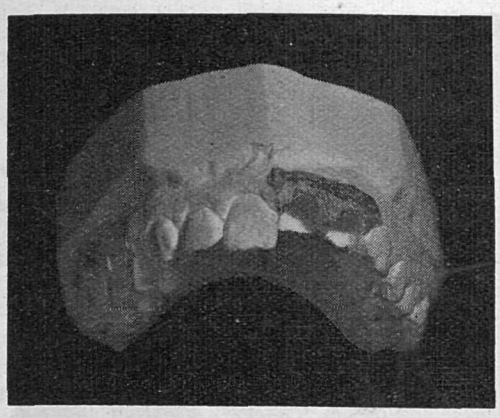


Fig. 2.—The teeth removed from the model and the sockets carved out in the plaster. Pencilling in of the gum first helps in marking the exact boundary of the sockets.

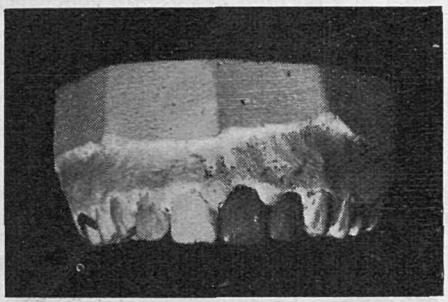


Fig. 3.—The artificial teeth fitted to the sockets.

COMPLETE RESTORATIONS

Under this heading we may include all those cases where every remaining tooth is to be removed, with the possible exception of two lower teeth for retention. The type of case will vary from the drastic " clear-clear," where the general health is affected by a chronic oral infection, to the more common case where the teeth have slowly been lost one by one, leaving comparatively few remaining veterans rapidly deteriorating under the strain of patched-up partial dentures.

I shall confine my remarks to a case where all the teeth are standing and where they are all condemned, and I shall describe a simple and straightforward technique such as is used in the denture room at this hospital. It will be obvious that where only a few teeth remain standing the technique is modified; but eventually it is the same.

The procedure, then, is as follows :—

1. All teeth behind the upper and lower canines on one side are extracted.

If a local anæsthetic is used this will probably require two sessions, while the length of anæsthetic will allow time for thorough, but not drastic, trimming and smoothing up of the bone.

If a general anæsthetic is used, upper and lower can be done in one and the bone again trimmed.

If ordinary gas is used there is the tendency for it to be a smash-and-grab affair with no time for any trimming, but a well-administered anæsthetic on a McKesson or Walton machine should give ample time.

2. The same process is repeated on the other side as soon as the mouth condition and the patient's state of mind will allow. The time which must elapse between the extraction of the posterior teeth and the construction of the denture will, of course, vary, but the work may be started as soon as the gums have healed sufficiently to withstand the strain of mastication.

3. The patient then returns to the surgery and, the oral condition being satisfactory, impressions are taken. Personally, I prefer plaster for choice in these cases, as with so few teeth standing it is not a difficult material to use, and ensures absolute accuracy.

It is important in taking the impression to include the whole of the labial surface of the gum. At the same visit a compo impression just of the teeth may be taken as a further guide in setting up, but I do not think that this is really necessary. It is important, however, to note very carefully the shade of the teeth and any characteristic stains, markings and fillings which can be successfully copied.

It is a platitude that the individual teeth frequently vary a little in colour, but this characteristic reproduced in the artificial teeth is wonderfully helpful in bringing about a natural appearance.

As regards the bite, there are two alternatives, either to take a squash bite at this same visit or to construct proper bite blocks and take the bite at a subsequent visit. I much prefer this latter method whenever possible, as it ensures greater accuracy.

And now for the mechanical work in which we must be able to co-operate intelligently with the mechanic, even if he is the best and highest paid mechanic in the world.

The impression having been cast in this or similar material and the models articulated, the upper teeth are ready to be set up, and this is the most important step of all.

One tooth is cut off the model, say the left central; it is cut down exactly to the gum margin and an artificial socket produced exactly where the root would be. The artificial tooth must be fitted

right up into this socket, ground to the shape of the natural one as required, fitted in its correct relation to the other teeth in the arch, and waxed into place.

Next the process is repeated in exactly the same way with the right lateral, the reason for this being that it is much easier to reproduce the correct position of the teeth in the arch by cutting off alternate teeth than by cutting all the teeth off first, or by setting up first the left and then the right side.

The process is repeated in the lower, and is usually rather a simpler matter, especially when the canines are being left for retention.

The cases are waxed and finished in the usual way and placed in antiseptic ready for insertion.

The final extractions can again be done in one or two sittings according to circumstances. It is quite satisfactory to remove the upper teeth and insert the denture and let the patient wear it for a week or so, with the possible aid of a denture powder; the lower teeth can then be removed and the lower denture allowed to join its fellow.

If the extractions are done under a local anæsthetic the denture can be inserted at once; if under a general it may be tried in while the patient is still under and, when fitting, removed until the patient has come round from the anæsthetic and ceased to show any signs of vomiting.

The length of time for which these dentures can be worn will vary from a few months to as much as two years or even more, but by going straight over from natural teeth to immediate dentures, the ridges are preserved and the making of permanent dentures later is rendered very much easier.

As regards the painfulness of inserting dentures immediately, it cannot be denied that the amount of pain is remarkably little, and I think this is due to the effect of the trauma of the extractions; whereas an attempt to fit temporary dentures about a week after the extractions, when this effect has worn off, is often very painful.

The second series of pictures will again illustrate these points.

That, gentlemen, is a brief description of immediate dentures as I understand them, and as I believe they apply to the ordinary private practitioner. I am aware that there are more startling, expensive and spectacular methods, but I think it is better that they should remain in the hands of startling, expensive and spectacular surgeons.

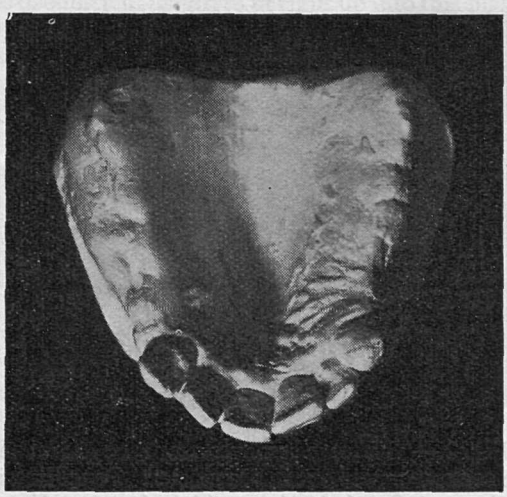


Fig. 4.—Upper model, showing posterior teeth removed.

Fig. 5.—Showing how the sockets are made.

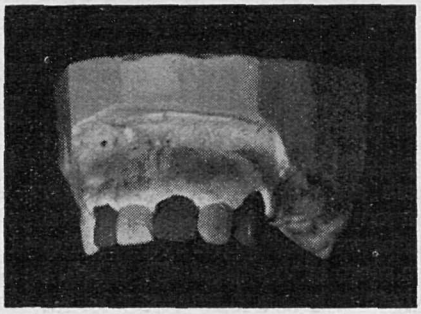


Fig. 6.—Showing the correct way of setting up by means of alternate teeth.

Correspondence

The College

To the Editor of the GAZETTE

SIR,—It is many years now since I visited Guy's. I still, however, see an occasional *Gazette*, and I have read with interest your protests against the conditions in the College. In my day, before the War, the South African War. we thought as little as you and your contemporaries of the " Spit." It drove us out of the place at nights, and during the day drove us into the wards, and was, in my opinion, a great influence for good.

Throughout the Empire, Guy's men are known for their clinical acumen and practical ability. The part played by the " Spit " in producing this type (who never neglects to do his R.E.) is too little realised. Luxurious student quarters and a more capacious library can tend only to make the Guy's man indistinguishable from the product of any other good hospital.

I would conclude, Sir, by adding that this project of yours is something with a future, a very bad future. By the way, do you write all your correspondence yourselves ?

Yours, etc.,

C. S. FARRAGUT (*Captain*).

(No! This is the only letter we have written this time.—*Ed.*)

Associated Ocular and Dental Disease

To the Editor of the GAZETTE

SIR,—Since Mr. Law's last letter to you on the subject of my paper on Associated Ocular and Dental Disease, we have had some private correspondence in which we have settled the matter to our mutual satisfaction. I must admit that I did not read his original letter in the spirit in which it was meant, in which I am at fault. As Mr. Browning also finds fault with my ophthalmic matter I must plead that I have obviously no specialised knowledge on the subject, but am forced to rely on what I am given to understand represents the best modern opinions.

Yours, etc.,

F. S. KRUSIN.

24*a*, Portland Place, W.1.

Reviews

Insulin. By DOUGLAS W. HILL, B.Sc., Ph.D., and FREDERIC O. HOWITT, M.Sc., F.I.C., Ph.D., with a Foreword by Professor E. C. DODDS. Hutchinson's Scientific and Technical Publications, " Bædeker on Insulin." Pp. 219. *Price* 12*s*. 6*d*.

THIS book is a very painstaking and careful summary of almost the whole of the literature on insulin, ranging from Brunner's first paper in 1682, on the connection between the pancreas and diabetes mellitus, through the subsequent anatomical, histological and physiological researches, to the present day. It is a book of some academic importance, as it is apparently the first such summary that has been produced for ten years, during which time the literature on the subject of insulin has reached vast proportions, since its discovery in 1922. Indeed, like some gallstone forming a monument around the germ which lurks within it, the amount of work that has been done around this little ferment has reached dimensions which deserve that overworked word " colossal." The task that confronted the authors in making a survey and summary was indeed formidable, and it has been performed with elaborate conscientiousness. That is the reason both that it is a good book and also that it will appeal only to a small circle of readers.

The book starts with a brief survey of diabetes mellitus as a disease, and a review of the early attempts at isolation of a pancreatic hormone. This leads to a description of the preparation of insulin, and the purification of insulin preparations. There is then a flood of information on the work performed on the physical, chemical and physiological properties of insulin, and its mode of action. The concluding chapters deal with the standardisation of insulin preparations and the possible substitutes for them.

It will be seen that the question of the clinical application of the hormone has been intentionally avoided, and for the doctor and medical student, therefore, the book is chiefly of academic interest. On the other hand, to the pure physiologist it may come as a godsend. The results of more than fourteen hundred research workers have been put forward, and of the two hundred odd pages nearly fifty are devoted to the bibliography alone. It will, perhaps, give some idea of the detail in which the subject is considered when we say that the physiological action of insulin is compared and contrasted in man, the rabbit, the cat, the mouse,

the frog, certain fish, the dog, the domestic fowl, the sheep and the goat under varying conditions, and that there are three hundred and eighty-six references to the chapter on the method of action of insulin alone.

The book will therefore be appreciated only by the academically minded, and we would recommend it heartily, but almost exclusively, to medical and physiological research workers or those about to compete in some Final Honours School of Physiology at the Universities. Even for these readers, however, the work—despite its thoroughness—has certain drawbacks, for, although it is a remarkable feat that almost the whole of the literature on insulin has been condensed into two hundred and nineteen pages, this has not been achieved without rendering the whole somewhat formless. The results of the various workers are stated somewhat baldly and without criticism, rather as Carl Bædeker describes a cathedral interior, so that it is difficult and often impossible to assess the values of differing results; one knows only what the results are, and not how they were attained, nor the conditions of the experiment, and while even Bædeker, that most austere and most undigressive commentator, will every now and then give two stars or three to points of special interest, Drs. Hill and Howitt give us little or no idea as to whether some results are more dependable than others. In the same way, no conclusions are drawn, nor summaries made, at the end of the chapters; in fact, the reader has to do all the work himself. This was the intention of the authors, in that they set out to provide an entirely dispassionate survey of the work on this subject, but we feel that the book would have been none the worse for an occasional summary here and there to help the reader to some outcome from that maelstrom of varying experimental results into which he is flung. But it is a good book to which one may turn with confidence when needing knowledge on the subject of insulin, and it is valuable not only in the amount of information contained in the text, but also in that one will be able to find any reference that one might want.

Dental Materia Medica, Pharmacology and Therapeutics. By WALTER J. DILLING, M.B., Ch.B., and SAMUEL HALLAM, L.D.S., R.C.S.Eng. Published by Messrs.
Price 10*s.* 6*d.* net.

THIS book is a very valuable contribution and asset to this important subject, as hitherto the literature has been somewhat limited and has left the student very little choice.

On reading, it did not take long to come to the conclusion that here indeed was a godsend to student and practitioner alike. The subject, a difficult one to present, has been dealt with in a masterly fashion.

The drugs have been classified into groups, according to their therapeutic uses, which facilitates the educational studies of the student, and at the same time makes its comprehension simple. The classification also achieves the very practical asset of being a ready reference for both the student and practitioner.

Every drug which has any application to dentistry has been included. In each group the drug to be mentioned is put in bold letters, followed by its pharmacological combinations. The dosage of the drugs is given clearly marked, so that at a glance the drug, its combination and the dosage is imprinted firmly on the mind.

The general action and uses of the important drugs are described, followed by a full account of their dental applications. In many cases the authors' opinion of the clinical merits of the drug in question follows, and enhances the value of the book.

This book will be a valuable contribution to the library of student and practitioner.

W. H. J.

Gabell's Prosthetic Dentistry. Revised by ARTHUR G. ALLEN. Published by Messrs.
Price 12*s.* 6*d.* net.

THE introduction of a written paper into the First L.D.S. Professional Examination has made it increasingly necessary to have a text-book which will summarise the knowledge the student has gathered in the two years he has done prosthetics, and whose contents are generally acceptable and recognised by the profession.

The first edition of Gabell's book earned a wide reputation, and the revised version, largely rewritten, will still further enhance that reputation. It deals essentially with chairside prosthetics, and not that of the laboratory. The book is opened by a general survey of the values and limitations of dentures, and the faults to be avoided in their construction to avoid injury to the hard and soft tissues of the mouth.

The second chapter on the examination and preparation of the mouth should be carefully read by every student of dentistry. Unfortunately, the conservative and prosthetic departments are apart, and the student seldom follows the complete restoration of the patient's mouth. In the conservation room, which teeth are to be scaled, polished and saved is decided. It is then necessary to prepare the mouth for dentures, and it is here that this chapter serves as a mine of practical information for the student.

The student in the prosthetic department does not see the patient until the mouth is prepared, so that between the two there is every possibility of the young qualified man starting out into the world without knowing whether his decisions are correct. This chapter combines the two processes, the conservative and the prosthetic into one.

The book includes impression-taking and the various materials and the technique employed with them. Taking the bite is dealt with very fully, and the selection of the various denture bases is discussed; the factors governing retention and the recognition of good or bad retention are explained; the methods of making the best use of the retention are also offered. Finally the more common complaints and how to deal with them are discussed.

The book is beautifully illustrated, well presented, and the continuity and clearness of the technique is remarkably good. It is a book to be read by the student and the newly qualified man.

W. H. J.

Sport

Rugby

Guy's v. Gloucester

ON Thursday, March 26th, Guy's journeyed to Gloucester to fulfil their postponed return fixture, and, after an exciting and even first half, the home side ran out easy winners by 3 placed goals and 4 tries (27 points) to a placed goal (5 points).

Both teams were below full strength, notable absentees on the Hospital side being C. S. Darke, van Steytler, Crabb and Yerbury.

However, their deputies put up such a fine fight during the first half that at one time Guy's looked like bringing off a surprise victory, but, after the interval, Gloucester played like an inspired side, and their fine understanding paved the way for easy victory.

Play opened very quietly at midfield, and from the first passing movement by Gloucester, Early was brilliantly tackled by Hartley. The home side kept the game in Guy's territory until the Hospital changed the scene of operations as the result of a penalty.

Gloucester quickly retaliated and, following some good handling by Phillips and Brookes, the forwards carried on the movement, and, with Halamandres failing to accept a pass back, Price dashed up and scored an easy try. Boughton made a fine attempt at conversion, the ball hitting the upright.

Guy's responded almost immediately when Wright made a splendid run of forty yards before he was checked.

The home team quickly retaliated, and after some excellent passing by the three-quarters, Phillips had bad luck when he just failed to gather with the line at his mercy. Guy's relieved the situation as the result of some judicious kicking to touch, and then both sides attempted to open out the game, but the marking was so good that very few movements got far.

After Dick had made two attempts to find a gap, Day threw out a pass to Brookes, but the Hospital forwards were so quick that they dribbled the ball ahead before Brookes had a chance to gather; unfortunately, the final kick over the line was too hard, and Boughton touched down.

Further efforts by the Hospital were soon rewarded when Douglas gathered the ball when most of the home team expected it to go into touch, and without a moment's hesitation raced in for a try, which Wright converted with a splendid kick.

Guy's did not retain their lead very long and, following a spell of midfield play, Meadows zig-zagged his way through the Hospital defence and, after side-stepping Halamandres, scored a gem of a try behind the posts, which Boughton converted.

The Hospital defended splendidly after this effort, but near the interval the Gloucester forwards broke away in fine style and Price broke clear to send in A'Bear for a try in the corner.

Early in the second half, Guy's made a great effort to reduce the deficit, and, following some excellent passing between Allen, Dick and Wright, Douglas cross-kicked in front of the posts, but Meadows saved a dangerous situation and relieved with a huge kick that found touch near mid-field.

Guy's had a lucky escape a little later when Halamandres slipped in trying to gather another long kick, but fortunately Phillips fumbled and was tackled before he could get clear. However, Gloucester continued to press and, after James had attempted a drop at goal, the ball bounced beautifully for Early, who dashed over for another unconverted try.

The home side were now playing strongly, and Guy's had as much as they could do to keep them out. After a sharp attack had been warded off, Gloucester came again, and Smith, taking advantage of some fumbling, gathered and registered a try which Boughton converted.

Although a well-beaten side, Guy's played up splendidly, and for a few minutes held a footing in their opponents' 25, but the Gloucester pack swept down the field in brilliant fashion and Harris touched down for a try for Boughton to add the goal points.

Clever combination between Meadows, Brooks, Early and Phillips enabled the latter to cut through cleverly for the final try, which was not converted.

In the closing stages Guy's had far more of the play, and had exceedingly bad luck in not scoring.

Team.—C. Halamandres; D. M. Douglas, C. G. Wright (Capt.), R. C. S. Dick, J. L. G. Hartley; R. D. Allen, K. A. Stanyon-Jaques; P. K. Hopkins, E. S. Nicholson, H. H. Crabb, E. R. Davies, E. B. French, C. G. Sharp, F. Walt, P. Fletcher.

Guy's v. London Irish

GUY'S concluded their programme for the season on Saturday, March 28th, when they met the London Irish at Sunbury, and, after an interesting game, were defeated by 3 placed goals (15 points) to a placed goal (5 points).

Both Stanyon-Jaques and Chapman were unable to play, and at the last moment Guy's called upon G. MacVicar, who had played consistently well for the junior fifteens.

Considering that he was by no means fit and that this was his first game in senior football, he put up a creditable performance, and, although he failed to find Allen accurately in the early stages, he improved as the game went on.

His opposite number, J. W. de Mestre, was in wonderful form and proved an admirable partner to Kilmartin, who paved the way for each of the tries scored by the home side.

The Irish pack was magnificent, especially in the loose, but they did not have matters all their own way in the scrums in spite of the fact that they were man for man heavier than Guy's. Considering this handicap, Nicholson hooked magnificently, and did exceedingly well to secure the ball as often as he did.

Both full-backs gave a good display, but in Dillon the Irish had a player well above the average—he had a wonderful sense of position and never put a foot wrong.

In the first half both Dick and Wright were closely marked, but as the game progressed they managed to elude the close attentions paid to them, and Dick in particular made several fine runs which might have led to tries.

The Irish started the game in their usual aggressive style and were soon proving a menace in the Hospital's 25. Dashing raids by their forwards were met by some splendid defensive play by Guy's.

Allen tried desperately to get the Hospital line working, but Kilmartin and P. M. de Mestre were strong tacklers and prevented any movements from becoming dangerous.

Guy's found it difficult to get away from their own half, but, in spite of their advantage, the Irish found it equally difficult to score.

P. M. de Mestre went very near with a drop at goal, but the only score in the first half came near the interval, when Kilmartin passed to W. F. Reidy, who, after a run of thirty yards, scored near the posts, for P. M. de Mestre to kick an easy goal.

After the resumption Guy's improved considerably, and had far more of the play, but following a sharp attack by the Irish threes, Horrigan picked up and dashed over the line for de Mestre to add the goal points.

Against the run of play the Irish increased their lead when Kilmartin found a gap and sent Horrigan away for his second try; once again de Mestre converted.

Following this reverse, Guy's played with greater determination, and with the back division working more smoothly, Dick, Wright and Steytler began to find gaps in the defence, and were dangerous whenever they had the ball. On one occasion Allen dropped a neat goal, but the ball was touched in flight by one of the opposing forwards and the goal disallowed. However, a brilliant movement initiated by Dick enabled Wright to run in behind the posts for a splendid try, which Kark converted.

This success gave the Hospital fresh life, but they left their effort too late and, although they continued on the offensive, they could not penetrate a sound defence.

Team.—C. Halamandres; C. G. Wright (Capt.), R. C. S. Dick, J. van A. Steytler, J. L. G. Hartley; R. D. Allen, G. MacVicar; M. R. Kark, E. S. Nicholson, H. H. Crabb, E. R. Davies, E. B. French, M. Walt, S. M. Whitteridge, E. C. Sharp.

Cricket Club

THE Annual General Meeting was held at the Hospital on March 17th. The Chair was taken by C. G. Wright in the unavoidable absence of the President.

Professor T. B. Johnston was unanimously re-elected President, and Messrs. A. Bulleid and T. B. Layton were unanimously re-elected Vice-Presidents.

The following officers were elected for the forthcoming season: Captain, G. M. A. Brown; Vice-Captain, A. D. Willis; Secretary and Treasurer, L. G. Morey.

P. D. Wharton was appointed Captain of the 2nd XI, and is to combine with the office that of Secretary of the 2nd and 3rd XI's.

The President and Officers hope that all cricketers attached to the Hospital will fully support the Club during the forthcoming season.

L. G. MOREY,
Hon. Secretary.

Ice Hockey

United Hospitals v. Sussex

TEN players from four hospitals journeyed down to Brighton on Monday, March 23rd, and defeated Sussex by 4 goals to 2.

The Hospitals' team had practised together on the day previous and played very well as a team. Individually, Hall and Moseley were the strongest players on the ice.

The match started with a few long shots, and both goalminders were kept busy throughout the first period. Moseley and Slater, however, kept the opposing attacks well away from the Hospitals' goal and made them hurry their shots. The Hospitals' attacks were not held, and only the excellent work of Merryfield in the Sussex goal kept the score clean. Right at the end of the period Moseley went through and scored from close in with a fast high shot.

The second period found the Hospitals on the defensive, and Grethney, from the Sussex defence, only just failed to score. Hall, however, increased the Hospital score after drawing the goalminder from his charge.

Shortly afterwards it was discovered that the Hospitals had seven men on the ice. The referee sent two of them off for a penalty period, and Sussex scored, West netting from an "assist" by Eves, who was the most dangerous attacker.

The Hospitals' third goal came in the next period after Simms had gained possession in the centre zone. He passed to Graham, who shot from close in. Sussex soon replied through Eves, who went through on his own and put in a hard shot with the defence man on him.

From now on the Hospitals did everything but score. Simms and de Wardener both had good shots stopped by Merryfield, who played magnificently. Moseley scored again with a long shot before the final period. The Sussex attacks seemed rather tired, and found Slater and Moseley unbeatable.

Hall got through several times, but unaccountably failed to net the puck. Once even the goal judge was deceived into switching on the red light for a goal, but the puck was still in play.

Sussex played desperately, their defence joining in the attack, but their shots from outside lacked sting and Moseley and Slater, helped by vigorous back-checking by Simms, Hall and Graham, gave them no chance to test the goalminder from close in.

A large crowd of over 1,000 spectators cheered on the Sussex team, but they had to admit defeat by four goals to two.

The teams were entertained to supper by the Stadium management, and plans were made for the formation of a League comprising the Universities and the United Hospitals for next year, with other teams of similar standard.

Teams.—The United Hospitals: E. P. O. Watson (Guy's); J. Slater, J. H. Moseley (St. Thomas's); A. Hall (St. George's), J. W. Graham (——), H. de Wardener (St. Thomas's); I. Ross (Guy's), R. J. Simms (Guy's), W. Creighton (St. Thomas's). Tenth Man: F. Pitt Payne (Guy's).

Sussex: Merryfield; Hill, Grethney; West, Morrisani, Eves; Rhodes, Croad, Bowman. Tenth Man: Stott.

Referee.—Col. F. E. Hill.

The United Hospitals v. Marlboroughs

THIS match was played at the Empress Stadium on Sunday, April 5th, the Marlboroughs winning by 4 goals to 3. Owing to the match being arranged at a late date, the Hospitals were not at full strength, Hall and Macdonald being unable to play.

A very fast and a rather rough game resulted. The Hospitals, after leading until the last few minutes, conceded two goals, one a piece of bad luck when Slater, blocking a pass from behind goal, unluckily played into his own goal.

The first goal came after good play by Simms and Hancock. Simms passed to the wing and Hancock, deceiving the defence into thinking he was going in on his own, passed back for the centre-man to net. Marlboroughs equalised, but Slater put the Hospitals ahead with a fast shot after a solo effort.

Fine defence play kept the Marlboroughs subdued, and good combination by Simms and Graham, who also put in some good shots, taxed to the full the resource of the goalminder. Shortly after the Marlboroughs equalised, Graham scored with a very fine oblique shot. With the Hospitals leading, the Marlboroughs played desperately, and the game became very rough.

The Hospitals felt after the game that they had won it, as it was understood that the game was to end at 11 a.m., at which time they were leading 3—2. However, it was continued for another twenty minutes, the Marlboroughs scoring once, and the last goal being put into his own goal by Slater.

Team.—E. P. O. Watson (Guy's); J. Slater, S. J. H. Moseley (St. Thomas's); W. Creighton (St. Thomas's), J. W. Graham (——), H. de Wardener (St. Thomas's); T. Hancock, R. J. Simms, I. Ross (Guy's).

Guy's team defeated St. Thomas's A Team by 4 goals to 2 on Sunday, March 22nd. Lee (two), Head and Praat scored for Guy's and Johnson scored both for St. Thomas's. Bromley very pluckily played goal, as neither Watson nor Groom were available and played a very creditable game.

Hospital Information, etc.

Notice

Nineties Club (Guy's Hospital)

Union of "Goblins" and "Contemporaries"

The Annual Dinner of the above Club will take place at the Trocadero Restaurant, W.1, on Wednesday, 13th May, 1936, at 7.30 p.m., Sir Francis E. Fremantle, O.B.E., M.P., in the Chair, preceded by a Meeting at 7 p.m. Price of Dinner, 12*s.* 6*d.*, exclusive of wine.

Will any who entered Guy's in the "Nineties" who do not receive through the post a notice of this Dinner, and who would like to attend either this year or in future years, please send their names and addresses to the undersigned?

E. B. DOWSETT.

12, Gloucester Place,
Portman Square, W.1.

The Guy's '89 Club

The Guy's '89 Club are holding their 40th Dinner at the Trocadero Restaurant on Wednesday, 13th May, 1936, at 7.30 p.m.

Dr. H. W. Collier will be in the Chair. Will old members please make a note of the date and help to make the Dinner a success?

Pass List

UNIVERSITY OF LONDON.
SECOND EXAMINATION.
M.B., B.S.
FOR MEDICAL DEGREES.
March, 1936.

P. Baxter	J. N. Hunt
C. Bucknall	G O'Gorman
E. R. Davies	G. H. Pearson
D. M. Douglas	K. O. Rawlings
W. R. Dyke	H. A. Rowley
T. G. Evans	A. F. Rushforth
O. C. Fung	W. H. Spencer
H. P. Guerrier	A. B. Stratton
R. C. Hallam	J. G. Stubbs
D. A. Hamilton	J. A. Sutton
P. Harvey	H. A. Thomas
S. W. Hinds	J. A. E. Watts
J. C. Houston	J. Wills

UNIVERSITY OF CAMBRIDGE.

The Degree of Doctor of Medicine has been conferred on

M. S. Spink.

SOCIETY OF APOTHECARIES OF LONDON.
FINAL EXAMINATION. March, 1936.

Surgery.

*S. Adams — *F. J. O'Malley

Medicine.

C. L. Blacklock — *E. E. Evans

Forensic Medicine.

C. L. Blacklock.

*Have now completed the examination.

Papers by Guy's Men

Robert Bradlaw. The innervation of teeth. *Proc. Roy. Soc. Med.*, 1936, xxix, 507 (Sect. Odontol.).

H. W. Barber and Another. Parakeratosis variegata. *Ibid.*, 457 (Sect. Dermat.).

L. Forman. Papulo-necrotic tuberculide; Bazin's disease. *Ibid.*, 463 (Sect. Dermat.).

W. A. Mill. Atrophic rhinitis treated by cartilage grafts. *Ibid.*, 525 (Sect. Laryngol.).

W. M. Mollison. Late X-ray reaction in the larynx. *Ibid.*, 527 (Sect. Laryngol.).

C. P. Symonds and Another. High cervical tumour with unilateral phrenic paralysis. *Ibid.*, 434 (Sect. Neurol.).

R. D. Passey, A. Leese and J. C. Knox. Bronchiectasis and metaplasia in the lung of the laboratory rat. *Journ. Path. and Bact.*, xlii, No. 2, 1936, 425.

Changes of Address

W. H. Grace, Glen Auldyn, Kilmorey Park, Chester. *Chester* 656.

W. R. Ransford, 2, Devonshire Place, Upper Wimpole Street, W.1. *Welbeck* 0049, 1595.

Leslie D. Wright, 19, Devonshire Street, Portland Place, W.1. *Welbeck* 2851.

In a previous number we were wrongly informed that Mr. J. W. Mansie, M.R.C.S., L.D.S., had changed his address to 112, Harley Street; Mr. Mansie's address is 112*a*, Harley Street, W.1.

Appointments

J. T. Irving appointed Head of the Physiology Department, Rowett Research Institute, Bucksburn, Aberdeen.

Dr. Ian R. Vermooten appointed Assistant Physician, Superintendent to the Mental Hospital, Pretoria, South Africa.

Marriages

BARBER—BUSH.—On March 28th, 1936, at the Priory, Christchurch, by the Rev. Canon Gay, Norman Leslie Barber, only son of Mr. and Mrs. Frank Barber, Forestdene, Barnet, Herts., to Sylvia Ivory, second daughter of Mr. and Mrs. Arthur Scrivener Bush, Headlands, Southbourne-on-Sea.

EDS. { P. W. C. / M. A. P.

GUY'S HOSPITAL GAZETTE

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THE sub-committee to consider measures for the improvement of the College has not yet met. It will be remembered that in our last number we said that the Clubs' Union Council had already appointed its members, who are to collaborate with those appointed by the Medical Council in effecting means to improve the College. The Medical Council does not meet until May 5th, and until then nothing further can happen :—

" Time present and time past
Are both perhaps present in time future,
And time future contained in time past,"

trills the poet, and time is certainly getting on. It is now fourteen weeks since our correspondent " Carfax " first suggested that improvements were urgent, and in a review of what has been effected in that time we observe only the Students' Club, who, with the £300 voted to them by the Clubs' Union Council, are proceeding rapidly with the redecoration of the Club quarters in the College. As we go to press the reading-room is still in the hands of the decorators. We have already seen the new paintings which are to adorn the walls, and thought the choice had been affected perhaps by our repeated complaints of the dinginess of the College. They are prints of " Laurier Roses " (Van Gogh), " Boats at St. Martingnes " (another Van Gogh), and a Monet of a tree upon a shore. Amongst those of the resident body who have seen them there is the widest divergence of opinion on their suitability. Feeling is sufficiently high to make us fear that the controversy will distract attention from the main issue.

The choice of decoration for the " Spit " is, as yet, not finally decided. When the present photographs are removed it has been suggested that two such portraits as " Le Bon Bock " and " The Bar at the Folie Bergère " might alleviate that appearance which we have so often described as neo-lavatorial. A further suggestion is that a prize be offered for a mural design from a member of the Hospital to adorn the wall behind the bar.

It was in connection with these recent activities in the College that a curious notice outside the Porters' Lodge attracted our attention. It said, "Whilst the Reading-room is being redecorated and refurnished, this room will be closed as from Monday, April 5th, until further notice." Not until we saw an identical one on the Reading-room door did we understand that the Porters' Lodge was still open to access. Subsequently a purist has tampered with the notice and made its language conform more closely with general usage.

All recently married Guy's men will be interested in our idea of inventing a new children's game of snakes and ladders. The game is to be played in the usual way, but on the board instead of the snakes and the ladders are to be various committees. To alight on an ordinary sub-committee would, of course, mean going back several places, but a double six would earn an emergency sub-committee and victory would be well in sight.

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IT gives us great pleasure to have in this number to congratulate Mr. Eason, Mr. R. C. Brock and Mr. Bulleid.

Mr. Eason has been elected a Fellow of the Royal College of Surgeons. The Council confers this distinction of election without examination on only two members a year.

Mr. Brock has been awarded the Jacksonian Prize of the Royal College of Surgeons for 1935 for his dissertation on the pathology, diagnosis and treatment of intra-thoracic new growths, including neoplasms of the œsophagus. The Jacksonian Prize is the highest award of the Royal College. Since its foundation by Samuel Jackson, F.R.S., in 1800, it has been offered annually, but by no means always conferred. The list of those who have been awarded this prize contains some of the

most distinguished names in British surgery. It is a remarkable fact that Mr. Brock is the first Guy's man to win this high distinction since Alfred Poland in 1857 wrote his essay on gunshot wounds.

Mr. Arthur Bulleid has been awarded the Cartwright Medal of the Royal College of Surgeons for 1931-35, for his essay on the relation of pulpless teeth to general disease and their treatment, with special reference to periapical rarefaction.

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IN September, to our great regret, Mr. Thompson retires. At a recent meeting of the Court, the Governors approved of the appointment of Mr. W. D. Doherty as Genito-Urinary Surgeon to succeed Mr. Thompson. Mr. Doherty's appointment leaves a vacancy on the General Staff which has not yet been filled.

With Mr. Thompson, we lose one of the most striking personalities at Guy's. There is no one who so consistently attracts such large numbers to the Physiology Theatre. The excitement of the rush to get there in time, of watching the fate of late-comers, and of listening to Mr. Thompson's most effective oratory are all quite unique in our Hospital life.

In twenty-six years' tenure of office as Genito-Urinary Surgeon to the Hospital his vivid personality has impressed itself on Guy's as few have succeeded in doing; it is a happy characteristic of the Hospital system that as Consulting Surgeon he does not completely sever his connection here, and he will, of course, continue to carry on his private practice.

Mr. Doherty, who has been an Assistant Surgeon on the General Surgical Staff, since 1932, leaves shortly for America, and will take up his new appointment in September.

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THE Court of Governors at a recent meeting have approved the appointment of Mr. P. M. F. Bishop as Honorary Clinical Endocrinologist to the Hospital, and an Endocrine Clinic has been officially established. At a time when the claims of some hospitals to be the first in England to found certain special clinics cannot be authenticated, we feel it should be noted that this Clinic is, in fact, the first in Europe to be devoted exclusively to endocrine disorders. In practice the Clinic has existed since May, 1934, functioning on Wednesdays as an adjunct to Mr. Cook's Gynæcological Out-Patients, and its origins are even farther back than that. When the late Mr. E. B. Crowther-Smith was a Resident Obstetrician, he examined the out-patient lists of Mr. Cook and Mr. Chapple and selected from them suitable cases for endocrine therapy. These he gave cards to see him in the Front Surgery, where he administered antuitrin-s and other endocrine products to them. On his death Mr. Bishop took over the treatment of these cases, and, together with Dr. Hampson, founded the Clinic, which was run in conjunction with the Gynæcological Department, from which at that time all his cases came. The Clinic was obviously destined to serve a very much wider field, and while it remained an adjunct to Gynæcological Out-Patients, the appearance there of males with pituitary obesity or undescended testicles was somewhat incongruous.

The new Clinic will be held at 2 o'clock on Tuesdays in Out-Patients. Its scope covers all cases of endocrine dysfunction. For the success of the department it is hoped that not only will as many cases as possible be referred there, but that its services will be called in collaboration on any endocrine problem in the wards or in Out-Patients. As examples already existing, the Clinic is now working in conjunction with the Gynæcological Department in a large and varied group of cases, with Mr. Lloyd in the investigation of male sterility, and with Dr. Grant and Dr. Barber in certain vascular disorders such as acro-cyanosis.

The cost of treating patients by glandular extracts is, at present, extraordinarily high, and even with the Clinic at its present size runs into some hundreds a year. The Hospital is not called on to pay a penny of this cost, which is met by private drug firms.

We congratulate Mr. Bishop, who we hear has been recommended for appointment to the Hormone Committee of the Medical Research Council.

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THE April special number is by custom devoted largely to reviews, and we are happy on this occasion to be able to head our columns with such well-known books by Guy's men as "French," "Rowlands and Turner," "Henderson and Gillespie," and Professor Ryle's new book "The Natural History of Disease."

It has always seemed to us a great pity that there is not a standard Guy's Hospital Text-book of Medicine produced by collaboration of members of the Staff. The above books, of course, by no means exhaust the list of widely used books written by Guy's men; there are "Conybeare," "Taylor," and many contributions to other text-books. The project seems impossible, but it is hard to give a definite reason why it should be so. Such a book would become a standard work and reflect the greatest credit on the Hospital.

The Future of Tuberculosis

A Clinical Lecture by Dr. E. R. Boland, F.R.C.P.

GENTLEMEN,—I propose to consider first whether tuberculosis is likely to disappear, and secondly, whether there is anything which can be done to accelerate its disappearance.

Leprosy was the chief scourge of mediæval Christianity and it was endemic all over Europe, and yet to-day it is extinct there, with the sole exception of isolated communities in Iceland, Norway and Sweden. Will tuberculosis—still, in spite of its great decline, " first captain of the men of death "—follow the same path to extinction and will the old façade of the Bermondsey Tuberculosis Dispensary eventually become as interesting a relic of a half-legendary past as the Lazaretto or the leper's squint in mediæval churches? Study of the mortality statistics might well suggest that tuberculosis is following the same path as leprosy. For example, the death rate for phthisis in London was 222 per 100,000 in 1882, 157 in 1900, and 100 in 1928—more than halved in less than 50 years. In other countries the same falling trend can be noticed. In Dublin, for example, it was 346, 336 and 168 in the same years. In Vienna, 685, 336 and 189. A study of the world figures shows that the countries most early and most completely industrialised have the lowest death rates: England, Germany and Holland, with rates less than 100; Italy, France, Lithuania, Austria, the Balkans and Russia, with rates little or much above 150. In fact, with few exceptions the decline in mortality of pulmonary and other forms of tuberculosis is universal. An attempt to decide the cause of this great decline may help to answer the two problems I mentioned at the outset: the probability of tuberculosis dying out and the means of accelerating its decease.

The discovery in 1882 of the tubercle bacillus gave a great impetus to anti-tuberculosis campaigns and Public Health measures, an impetus which has steadily gained in force to the present day, when the whole civilised world is covered by a network of organisations aimed at eradicating the disease. It would be very satisfactory to be able to trace the declining curve directly to the effect of these measures, and propagandists, to do them justice, have not been slow to do so, but the mortality curve seems strangely unresponsive to their efforts since the curve was falling long before any special measures were taken and no added steepness in the curve appeared after 1882, the year when Koch identified the tubercle bacillus.

Karl Pearson, the first in England to apply statistical methods to scientific research, was extremely unpopular when in 1911 he first pointed out the facts and administered a cold douche to too complacent propagandists; he was not endeavouring to belittle their achievements, but to point out that there must be additional factors at work in producing the falling curve other than their efforts. So far most of the health measures have been directed against infection, and it is significant in this context that it is only the mortality rate which is falling and that the rate of infection in adults is still nearly 100 per cent. Anti-tuberculosis schemes have been invaluable in alleviating the lot of individual sufferers, and have probably played a great part in diminishing the morbidity of the disease, but one cannot accept them as a facile explanation of the whole decline. The fall in mortality has been accompanied by a steady rise in the standard of living and housing, and Professor Wright stressed the importance of these factors in diminishing the mortality rates, and many facts attest it. Statistics are available which show the close relation between mortality and overcrowding and malnutrition. Improvements in conditions of work are accompanied by a fall in morbidity and mortality rates, and the temporary check in the declining curve during the war years, most marked in the blockaded Central European countries, help to give point to Professor Wright's observations. However, the fact that the mortality rate falls as the standard of life rises does not prove that the rise is the cause of the fall any more than that the fall is the cause of the rise, and some countries with a rising or stationary mortality rate have a higher standard of living than some in which the fall is greatest. Great as must be the influence of improved conditions, there still must remain some other factors. The universality of infection proves that the bacillus is not becoming less common, so that this factor can be of little importance, and there is no evidence that the tubercle bacillus is really losing its virulence, so that the last fact to discuss is the question of immunity. Is tuberculosis dying out because the people of the earth are becoming immune? They may and do acquire immunity by infection, and it is common knowledge how acquired immunity influences the cause of tuberculous infection. Apart from this, there is the possibility that immunity to the disease can be inherited. If immunity to the disease can be inherited, it would explain the decline in mortality more convincingly than any other factor. As I have stated, many, if not most, people deny the

possibility of inherited immunity, and Professor Wright, I think, considers that the human race breeds too slowly for any radical alterations in the genetic constitution to take place in the relatively short time that the race has been exposed to the disease. He mentions four or five generations as the period of decline in the mortality, but actually the somewhat inadequate statistics before 1850 show that the decline in mortality has been going on for several centuries. It is stated, with what certainty I know not, that unless the virulence of the spirochete has declined, the immunity of the European population has increased to syphilis, and it has become a disease of relatively low infectivity and relatively benign course independently of treatment, and the human race, or at least the European representatives of it, have harboured the spirochete for a much shorter time than the tubercle bacillus. In the laboratory, inherited immunity in other diseases is no longer a question of conjecture, but of certainty, and this immunity appears in a relatively small number of generations. It is at least probable, if unproved, that natural selection is gradually weeding out vulnerable stocks, and that the inheritance of generations of immunity is building up races resistant to the tubercle bacillus.

It is pertinent at this point to inquire if there is any race which shows evidence of such immunity since the study of the process in one race may serve as an example of the process which may be leavening the whole. It is generally considered that the Jewish race, although by no means immune, has a relatively high resistance to tuberculous infection. This resistance is not really a perquisite of the Jewish race as such, but pertains to Jewish communities, subject to years of overcrowding and inbreeding; Jews who have pursued agricultural pursuits in the cradle of their race have no special immunity, but, on the other hand, have paid a heavy toll for the return of their infected and exiled brothers. The expatriate Jew has produced his immunity at a terrible cost. Segregated and crowded in ghettoes under appalling hygienic and economic conditions, they had in mediæval times a far higher mortality rate from tuberculosis than their Christian benefactors or oppressors. Anticipating the Germans in their insistence on the preservation of racial purity, they have transmitted the immunity gained by such fearful losses to their descendants; urbanised earlier from their own choice or the choice of others, they are merely further along the road along which Mankind appears to be travelling. All over the world the process can be studied in various stages of evolution amongst the different peoples. The peak of English mortality was probably over a hundred years ago, in Ireland probably about seventy, and Irish mortality rates show that they have still further to travel than the English. In some countries infection appears to be at the peak to-day, and in Callao and Lima the mortality rate is over 600 per 100,000.

In some remote countries the mortality rate is nil—as yet. They stand like corn ripe for the sickle, and in these days of rapid communications and wholesale civilisation they may not have long to wait. Italy carries with her to Abyssinia a weapon more deadly than the sword, a weapon ever at the side of the invader and coloniser. As a 1670 commentator naively observes: "It hath been generally observed that where the English come to settle, a Divine hand makes way for them by ravaging and cutting off the Indian—by some raging mortal disease." It must be concluded, however, that, although some parts of the world are still in the rapids, the greater part is already reaching smooth water.

Although the mortality rate is lower to-day than it was, it is still lamentably high, and it is difficult to cheer the passing moments of a consumptive's life by telling him that in all probability in 100 years the disease from which he is so regrettably dying will be extinct. Acknowledging that the decline in mortality may be outside human control, is there any possibility of our being able to accelerate the decline in mortality and so save countless useful lives? If the tubercle bacillus could be eradicated, it would not worry us how immune or susceptible was the human race. Rapid eradication of the human bacillus presents great and almost insuperable difficulties, but eradication of the bovine bacillus should not. The fall in the mortality rate for bovine tuberculosis has been more rapid than that from the human bacillus, and, what is even more significant, the morbidity rate has fallen also, and even in the relatively short time that I have been at Guy's florid tuberculous glands and bone tuberculosis has become a relative rarity. But it still destroys many lives and means much unnecessary suffering. A week's expenditure of the late war would pay for the extermination of bovine infection inside three years. It appears that the social conscience of a nation is in inverse proportion to its size, and several of the smallest countries of Europe should be free from bovine infection in a short space of time as a result of determined effort. In England things move more slowly, and there is a vast amount of prejudice and vested interest to overcome before the weeding out of infected stock can take place. An attractive method, if an unsatisfactory compromise, would be to insist on the pasteurisation of all milk. Thanks largely to the big combines,

most of London's milk is pasteurised, but the process requires a good deal of supervision if it is to be reliable. If the big dairy companies as a whole have done a lot to improve the milk supply, their method of bulking milk may tend in the opposite direction, so that the milk of one tuberculous cow is added to thousands of gallons of pure milk, but I imagine that in that case the numbers of bacilli are so diluted that they are unlikely to cause disease.

If the country was prepared to spend more money on improving housing conditions for cows, educating the farmers and exterminating diseased cattle, bovine tuberculosis could be abolished completely in a few years. In order to save money and obviate the dislocation of dairy farming, methods of immunising cattle have been perfected and are in operation, but I think that the solution of this particular problem is the abolition of the bacillus, and any other course is merely paltering with the question. In dealing with the problem of human infection one is faced with two alternatives, either to abolish the bacillus or to produce an immune people. Abolition of the human bacillus presents a much more difficult problem than abolition of the bovine bacillus. Theoretical eugenists have proposed the lethal chamber for the unfit, just as I have proposed it for cattle, but I think they have proposed it more as a gesture than as a serious policy, and the remedy would seem to be much worse than the disease. More seriously they have proposed that the tuberculous should not be allowed to marry, but they can produce little or nothing in the way of evidence to support this suggestion. If the tuberculous are not to die, they can be segregated. This is secured to a certain extent by the Public Health schemes, and not the least important part of sanatorium and hospital treatment is the temporary segregation of tubercle-spitting consumptives and the conversion of their sputum, by remedial measures, from positive to negative. In many countries, and especially France, the children of the tuberculous are cared for during their most susceptible years away from their parents, with their consent, and returned when there is relatively less danger. This measure alone has reduced the incidence of fatal tuberculosis amongst the children of tuberculous households, and it is a pity that no such comprehensive scheme exists in this country.

These methods of segregation are admittedly only temporary, and there remains the problem of what to do with the tubercle-spitting patient when he leaves his sanatorium to return to his home, where possibly there are many children in crowded surroundings. Some health reformers would have short shrift with them and would immure them in institutions for ever or until their sputum became negative. They point out that a patient with smallpox or scarlet fever is not allowed to remain at large to be a menace to his neighbours, and that the tuberculous patient is even more dangerous to the community. Lepers, it is true, were and are treated in this way, and the community does not support the liberty of the insane, but it does not require a particularly fertile imagination to picture the cruelty and hardship which compulsory segregation would produce. Besides, who would not prefer to die in his boots than admit to a disease which might mean a lifetime of hopeless imprisonment, and what doctors would be found to sign a tuberculosis notification certificate if by doing so his patient would be immured for life? So far as I know, no country has adopted a complete policy of compulsory segregation, but some countries have been groping towards it. A Canadian tuberculosis officer came to see me in Out-Patients the other day, and asked me how we dealt with the problem of the bacillus-spitting patient. I told him that we dealt with it by education and persuasion, that we hoped to diminish the risk of spreading infection by improvements in housing, education in sanatoria, and similar measures. He told me that he used the same methods but asked me how we dealt with the patient who could not be educated or refused to be treated. I said that in theory we could apply to a magistrate under the Public Health Acts and have him removed to an institution by force, but that in practice this measure was hardly ever taken. He was obviously shocked; I understood from him that, in his country, such a patient would be summarily removed either by judicial order or else by "indirect compulsion." Since the medical authorities are prepared to denounce him to his employers and since they control his insurance money, sick benefits and unemployment pay, one can understand the force of their "indirect" measures.

I think one can pay too much for health, and autocracies of any sort do not appeal to me, but a medical autocracy less than any. Besides, apart from the cruelty of compulsory segregation, it is not really necessary. The tubercle-spitting consumptive is really only dangerous if he is not educated as to the danger or if his housing conditions are bad. It is sufficient to educate him in sanatoria and see that when he leaves it, his very young children should be provided for and that his accommodation is rearranged to diminish the risk of infection. It is much safer to treat tuberculosis openly than to drive it underground by penal legislation. In exceptional cases the mechanism already exists to prevent the tuber-

culous from working in trades where he would be of especial danger or from living in places where the danger of infection is greatest.

Much can be done by social methods and organisation to provide for the consumptive and diminish the risk of infection, but the process is a slow and uncertain one. Can anything be done to diminish the risk of infection in the general community by increasing their immunity artificially? There is at the moment a great experiment going on in most countries to produce an artificial immunity deliberately instead of leaving it to the vagaries of chance. Calmette discovered that if the tubercle bacillus was subcultured for many years in media containing bile, the bacillus gradually lost its virulence while apparently keeping to some degree its immunising power. Infants all over the world are being treated with this vaccine, and the results claimed by Calmette, at all events, are most encouraging. It remains to be seen whether it will prove successful. It is a pity that practically no efforts are being made in this direction in this country.

Some people have suggested that if milk is made tubercle-free, it will deprive us of one valuable method of producing immunity to tuberculosis with relatively little danger. It is quite true that infection by the bovine bacillus confers a considerable degree of immunity to infection by the human bacillus, but its action is dangerous and uncertain, and in young children definitely to be avoided, and I think it is a form of immunisation we are better without. It is much better to reduce the spread of the disease by improving economic conditions than by merely immunising the people against it while allowing them to remain in their original slums, and anyone who has seen the change in the Bermondsey slums during the past four years will agree that much is being done, although there is much more to do. I think myself that, in spite of all the money spent on tuberculosis, there is still not enough accommodation for their institutional treatment. Strongly opposed as I am to compulsory segregation, the advantages of voluntary segregation are obvious, and I am constantly seeing patients who are in need of treatment or are a danger to their fellows and who would be prepared to go away if suitable accommodation were available. All I can offer them in many cases is the tuberculosis ward in their local hospital, where they have constantly before them in their fellow patients reminders of their mortality and impending fate.

Who can doubt on the evidence which is available that tuberculosis is a dying disease, but it may well be that before we have finished with it, it may change its character and, as our protection by exposure becomes less, a non-immune population may gradually appear and acute fulminating tuberculosis reappear. In other words, we may be merely in the trough of a great epidemic wave and generations a hundred years hence at the peak of the next, may look with envy at our relatively healthy days. Although this speculation may be far fetched, I think it probable that before tuberculosis finally disappears, spasmodic acute cases will appear unless the tubercle bacillus is eradicated altogether. At all events, tuberculosis is prevalent enough to keep us occupied all our days, but by social legislation and medical measures let us hope that its departure will be accelerated, but I doubt if in my lifetime I will be able to put up the shutters of the Tuberculosis Department and spend my declining years lecturing on tuberculosis in the historical section of the Royal Society of Medicine.

Materia Medica—And All That

By "Stanley"

MATERIA Medica in my day was the dullest and most laborious subject, and the advent of the examination made our lives a drudgery. We ground lists of unrelated facts into our minds and used all the *aides memoires* and little books compiled by ingenious people to help us over the stile. But just when the mind was nicely stocked with things like,

"Into Tinctura Cinchonæ Co.
The following important ingredients go:
Serpentary, bark and peel,
Spirit, saffron and cochineal,"

the old gentlemen whose job it was to mind the Pharmacopœia got into a huddle, changed some of the ingredients, and all this labour went west. Most of us older ones have ventricle upon ventricle stuffed with obsolete rhymes which might well be relegated to a place in the Wellcome Museum near the "Interior of a Mediæval Pharmacy." There used to be quite a useful one for the preparations of opium which served the turn of several generations of students, to which the usual thing happened:—

"Two extracts, a plaster, a vinum, confection,
Three pills, four powders, a lozenge, an injection;
Of tinctures there are three, suppositories one,
A liniment, an ointment—and opium is done!"

I think the Dangerous Drugs Act must have had something to do with settling that one, and perhaps I am contravening the Act by mentioning it. However, the exam. has to be passed, and once it is over you really begin to get working knowledge of the subject.

Many recently qualified students do not seem to realise that when they write a prescription which is going to be dispensed by a chemist in the ordinary way of business, they must *not* write the name of a stock mixture, such as "Mist. Acidi Co. ℥ j t.d.s.," because the chemist may not have the faintest idea what you want putting in the mixture. Every single ingredient, with its dose, must be written down. What is more, unless you pay due regard to incompatibilities you may produce a concoction which will not enhance your reputation with your patient. Time spent in practising writing prescriptions will be well spent. Read the notes in Hale-White on "Prescribing" and "The Prescription" and get into the right way from the start. There is a small book published for the use of chemists called "The Art of Dispensing," which should be studied by every medical student. It will help him to see what his prescription may look like from the other side of the chemist's counter. Never use abbreviations of doubtful meaning.

I am always thankful that my father insisted on my spending a year before I entered Guy's under conditions which were devised to reproduce those of the old apprenticeship system. During that year I not only learnt by actual practice how to make many preparations from the raw materials, but also how to dispense. There is no better way of learning doses and incompatibilities. The time was not wasted, for I also did my Chemistry, Physics and Biology.

Looking back to my student days it seems to me that we use many more potent drugs than we used to do. The hypodermic syringe was only used for the injection of morphia, strychnine, brandy, ether, digitalin and pilocarpine. It had a leather plunger and reposed in a leather case lined with red plush. The needles were either made of iridium or of ordinary steel, and were not very sharp. Those made by Messrs. A would not fit the syringes made by Messrs. B or C, so it was quite a common thing to accumulate a supply of syringes and needles, none of which would fit each other. I was a member of the committee which, on account of the increasing popularity of intravenous therapy, met at the India Office for the purpose of standardising needles and syringes.

The precursors of our present Pharmacopœia continued to show for some centuries and many editions the influence of superstition and witchcraft.

Until 1617, such drugs as were in common use in England were sold by apothecaries and grocers. In that year the Society of Apothecaries obtained a separate Charter, and it was enacted that no grocer should keep an apothecary's shop. The effect of this Act was to confine the preparation of physicians' prescriptions to apothecaries. For some reason or other the College of Physicians were not altogether satisfied with the accuracy with which these prescriptions were dispensed, so in 1618 they issued a Pharmacopœia. Power was conferred jointly on the Wardens of the Society of Apothecaries and the Censors of the College of Physicians to inspect all apothecaries' shops within seven miles of London and to destroy all compounds which they found to have been "unfaithfully prepared." Successive editions of the "Pharmacopœia Londinensis" appeared in 1618, 1621, 1632, 1639, 1677, and in 1721. Sir Hans Sloane was responsible for the 1721 edition, and, although he retained as official preparations such substances as dog's fæces, earthworms and moss grown on the human skull, he omitted the excrement of human beings, mice, geese and other animals, as well as calculi and blind puppies. A further edition came out in 1746, and I recently found among my books a copy which I believe to belong to this edition. It is impossible to say for certain as some of the front pages are missing. It originally belonged to one David Ogilvie and bears his autograph. It was a great improvement on the previous issues and only contained preparations which had received the approval of the Pharmacopœia Committee. The *P. londinensis* was the forerunner of the B.P. of to-day. At the time the Medical Act of 1858 was passed, there were three separate pharmacopœias in the United Kingdom, those of Edinburgh, Dublin and London. The nomenclature of the preparations contained in these various works was much the same, but the preparations themselves varied very considerably in their strengths. The Medical Act of 1858 directed that the General Medical Council should publish a book containing a list of all medicines and compounds, and decreed that this book should be the sole authority for the United Kingdom and should supersede the Pharmacopœias of Edinburgh and Dublin. It was considered that the variations in strength of the preparations hitherto obtaining constituted a public danger. The first Pharmacopœia Britannica was accordingly published in 1864, but it caused such widespread dissatisfaction that a new edition was issued in 1867. Most of the trouble apparently arose from the fact that the committee

engaged in its compilation may have been competent to decide on the kind of preparations they wanted, but they had no practical knowledge of the methods by which these preparations ought to be made.

Looking through the pages of my copy I can trace the ancestors of a number of B.P. preprations which we use to-day. Tinct. Opii Camphorata, as our old friend Tinct. Camph. Co. is now called, descended from " Elixir Paregoricum," which contained " flowers of benjamin, opium, strained, of each, one dram; of camphire, two scruples; of the essential oil of aniseeds, half a dram; of rectified spirit of wine, a quart." " Infusum Amarum Simplex " was nothing more nor less than Inf. Gent. Co. with exactly the same ingredients. " Spiritus Volatilis Aromaticus " was the great-grandfather of Sp. Ammon. Aromat, and contained " essence of lemons, oil of nutmeg, oil of cloves and dulcified spirit of sal ammoniac. To be distilled with a gentle fire."

There were other preparations, however, of which I can find no trace in the present pharmacopœia, nor for that matter can I find them in the G.H.P. For example, there was " Axungiæ Viperinæ Curatio," or purified viper's fat, " Jus Viperinum," or viper's broth (which could be made from fresh or dried vipers and contained a " chicken of middle size to make the broth more grateful "). There was also a Vinum Viperinum, made by " macerating two ounces of dried vipers in three pints of white wine." Other preparations were the " Spiritus, Sal et Oleum Fuliginis " and " Tinctura Fuliginis," both made from wood-soot, and therefore possibly containing creosote-like bodies.

" Pulvis e Chelis Cancrorum Composita," or compound powder of crabs' claws, contained equal parts of prepared crabs' claws, pearls and coral, intimately mixed. " Pulvis Bezoardicus " contained the compound powder of crabs' claws and Bezoardic Powder—and for the benefit of those who do not know, " bezoar-stones " is the name given to the hair-balls found in the stomachs of ruminants. There is a remark about this preparation which says, " To heighten the virtue of this powder it was originally directed to be made into balls or pellets with jelly of vipers."

I cannot close this paper without mentioning a preparation which was very famous in its day and won for itself a great reputation. In this connection I like to think of young Astley Paston Cooper going up for his *viva* in Materia Medica.

" Please be seated, Mr. Cooper," says the examiner. " I doubt not but that you have assiduously pursued your studies and have presented yourself before me fully prepared to answer such questions as I propose to ask in order to put the state of your knowledge to the test. Will you therefore, Sir, have the goodness to tell me the composition of Confectio Damocratis or, as it is called in the vulgar tongue, " Mithridatium "? For your greater ease and comfort I shall not require you on this occasion to reply in Latin, although I am fully convinced that your gentlemanly accomplishments have reached such a degree of attainment as would enable you to do so with the greatest ease."

" Certainly, Sir; thank you, Sir," replies young Cooper, glad to have been asked such a simple question. Having already decided to become a leading surgeon, it necessarily followed that no ordinary question about a mere medicine could present the slightest difficulty. So, gaining confidence with every word, he begins: " Mithridatium, sive Confectio Damocratis, otherwise Mithridate or Damocrates's Confection. Take of cinnamon, fourteen drams; of myrrh, eleven drams; agaric, spikenard, ginger, saffron, seeds of treacle-mustard, frankincense, Chio turpentine, of each, ten drams; camels' hay, costus, or in its stead zeodary, Indian leaf, or in its stead mace, French lavender, long pepper, seeds of hartwort, juice of the rape of citrus, strained storax, opopanax, strained galbanum, balsam of Gilead, or in its stead expressed oil of nutmegs, Russia castor, of each an ounce; poley mountain, water-germander, the fruit of the balsam tree, or in its stead cubebs, white pepper, seeds of the carrot of Crete, bdellium strained, of each seven drams; Celtic nard, gentian root, leaves of dittany of Crete, red roses, seeds of Macedonian parsley, the lesser cardamom seeds freed from their husks, sweet fennel seeds, gum arabic, opium strained, of each five drams; root of the sweet flag, root of the wild valerian, anise-seed, sagapenum strained, of each three drams; spignel, St. John's wort, juice of acacia, or in its stead Japon earth, the bellies of scinks,* of each two drams and a half; of clarified honey thrice the weight of all the rest. Dissolve the opium first in a little wine and then mix it with the honey made hot; in the meantime melt together in another vessel the galbanum, storax, turpentine and the balsam of Gilead, or the expressed oil of nutmeg, continually stirring them round, that they may not burn; and as soon as these are melted add to them the hot honey, first by spoonfuls and afterwards more freely; lastly, when this mixture is near cold, add by degrees the rest of the spices reduced to powder."

" Thank you, Mr. Cooper," the examiner may have said. " That is indeed enough for to-day."

* ? *Skunks.*

The Natural History of Disease. By Professor JOHN A. RYLE. Published by the Oxford University Press. Pp. 435. *Price* .

THE publication of a collection of Dr. Ryle's medical essays has been eagerly awaited. There are here a most admirably balanced thirty-four, nine of which were first published in the *Gazette*. The range is wide and varied, but in each essay the subject has been described from the same viewpoint, that which Heberden, Sydenham and Addison adopted; it is the "general view" which is taken. Indeed the motive which gives unity to this admirably blended collection is the stress laid jointly on clinical observation and a balanced judgment of the known facts, clinical and laboratory.

To mention the contents specifically there is first "The Physician as a Naturalist," in which the holistic view is especially expounded. Here Sydenham's dictum that a disease "is no more than the vigorous effort of Nature to throw off the morbific factor" is quoted, and in subsequent essays descriptions of specific diseases continue to stress the importance of "the soil." The clinical picture constituting the disease is that particular patient's reaction to the "morbific factor," and may therefore be expected to vary with sex, age, race and constitution.

"The Training and Use of the Senses in Clinical Medicine," a small classic in its subject, is followed by two essays on pain, and then come a number on alimentary diseases—duodenal ulcer, steatorrhœa, rectal accumulations—and including that group of colonic disorders in the isolation of which Dr. Ryle has himself played such an important part. The natural histories and prognosis of staphylococcal and streptococcal fever and B.C.C. infections precede a miscellaneous group which includes "Notes on Gastric and Prostatic Uræmia," "Chronic Bright's Disease without Albuminuria," "Meningitis and Meningism," "Thrombo Phlebitis Migrans" and "The Radial Pulse." Dr. Ryle compels attention and stimulates interest equally when writing of the familiar lobar pneumonia as in his vivid accounts of vaso-vagal attacks.

Essays on diathesis and medical research bring us to the closing chapter, "The Hippocratic Ideal," and the circle is thus completed with further philosophic and ethical speculations, some historical data concerning Hippocrates, and a most entertaining selection of the Hippocratic "aphorisms."

Such, then, is the scope of the book which has that pleasant quality of being extremely easy to read. Those who are fortunate enough to acquire it should be helped to attain that "broad medical philosophy" towards which there is nothing to lead them in the present system of medical education.

Index of Differential Diagnosis of Main Symptoms. Edited by HERBERT FRENCH, C.V.O., C.B.E., M.D., F.R.C.P. Published by Messrs. John Wright & Sons (Bristol), Messrs. Simpkin, Marshall, Ltd. (London). Fifth Edition. Pp. 1,145. *Price* 63*s*.

THIS well-known work, first published in 1912, has now reached its fifth edition. It was originally written as a companion volume to the "Index of Treatment," and as such deals almost exclusively with symptoms and signs, arranged in alphabetical order from "Abdomen, rigidity of," "Abdominal pain," etc., to "Wind," "Worms" and "Xanthopsia," nor does the range of the work end at X, for yaws and yellow fever and zymotic diseases and Zenker's degeneration and so forth are all discussed under their respective symptoms. To compensate for the fact that the symptoms are arranged in alphabetical order, should the reader wish to consult the book with a view to reading about a particular disease, he is enabled to do this through a gigantic index of 227 pages, meticulously accurate and clearly arranged.

The book is larger than ever, and the number of illustrations has been increased. For those who do not know the work, we may say that, apart from treatment, there appears to be everything in medicine, and it should be possible for the author's guiding principle, "that a particular symptom attracts special notice in a given case, and that the diagnosis has to be established by differentiating between the various diseases to which this symptom may be due," to be carried out with the minimum of error.

It may be said that many diseases are not dealt with fully, but it must be remembered that the object of the book is not to discuss ætiology, pathology, treatment and prognosis (though this is done in many cases), but to enable the reader to arrive at a diagnosis in a given case by differentiating one condition from others. The book is remarkable not only for the accuracy and range of the text, and the extreme efficiency of the index, but also for the profusion of illustrations. Of the 742 illustrations, 196 are coloured, and coloured very beautifully—better, perhaps, than we have ever seen in any other English text-book. They range from coloboma of the choroid to the facies of fragilitas ossium. The monochrome photographs are also better than in any text-book that we know published in this country. The book is very well and accurately printed in beautiful type, and the printers and publishers are greatly to be congratulated on its production.

This is a valuable reference book, more than half of the contributors to which are Guy's men, and we welcome the appearance of a new edition.

The Operations of Surgery. Vol. I. By R. P. ROWLANDS and P. TURNER. Published by Messrs. J. & A. Churchill. Pp. 1,040. *Price* 36*s*.

JACOBSON first produced this book in 1889, and its production has always remained in the hands of surgeons of this hospital, to which it is dedicated. It will remain best known as "Rowlands and Turner." Although since the last edition we have suffered the loss of Mr. Rowlands he had before his death already completed the sections on the stomach and duodenum and the operations on the intestines, which will appear in the second volume.

This work is intended to provide a detailed account of surgical procedures for practising and embryonic general surgeons. It is also hoped that it will serve these surgeons as a work of reference and aid them in assessing the value and significance of recent advances. For candidates to the higher examinations there have been retained such of the classical operations as they are likely to be expected to know.

Mr. Turner has been assisted in the revision of this volume by Mr. W. H. Ogilvie and Mr. Grant Massie.

In rewriting the section on operations on the lower extremity Mr. Grant Massie has described the orthopædic surgery of the leg. Additions include the exposure and arthrodesis of the sacro-iliac joint, the Smith-Petersen approach to the hip, the pin of that name, the Lorenz operation for bifurcation of the femur, and sub-astragaloid arthrodesis. Mr. Grant Massie contributes also a valuable section on the surgery of tendons in which modern methods of tendon suture, lengthening and transplant are described.

The operations on the vertebral canal which are described by Mr. Ogilvie are laminectomy and those for spina bifida, and spinal caries. The remaining and larger portion of the volume, which deals with the head and neck, the thorax and upper extremity, has been revised and rewritten by Mr. Turner.

Mr. Turner has continued to hold an admirable balance between a too ready acceptance of operations which have yet to stand the test of time and a too tenacious retention of formerly popular procedures which are now being discarded.

The appearance of this volume occurs at a most opportune time and provides a standard of established worth, brought up to date, with which to compare more recent additions to this field.

A Text-book of Psychiatry. By D. K. HENDERSON, M.D., F.R.F.P.S., F.R.C.P.E., and R. D. GILLESPIE, M.D., F.R.C.P., D.P.M. Published by the Oxford University Press. Fourth Edition. Pp. 606. *Price* 18*s*.

THERE is much interest and enthusiasm over psychiatry among young people now, especially among those just entering the wards, who may feel, perhaps, that with the opportunity that is presented to them (patients, lectures, demonstrations, a library with text-books) the riddle of the mind is already almost within their grasp. But the great obstacle that wearies even the most earnest seeker after truth is the confusion of thought with which the subject is pervaded, and—more immediately—the chaotic terminology with which mental affections are endowed. So one after another will abandon the unequal and disappointing struggle.

The older generations already in practice are also disinclined to allow much of their time to a subject which, owing to the difficulty of study, demands considerable intellectual output with small return.

The text-book of psychiatry by Professor Henderson and Dr. Gillespie has gone through three editions since its publication in 1927, and the fourth has now appeared. Here is a book which has improved the situation, and gone far towards unravelling the tangle of psychological terms and clarifying the obscurity of the nature of mental abnormalities. It is a book which can be understood, and, further, it is a book which can be read without agonising intellectual effort, and by which after even a few hours' study the reader's mind is readily enriched. We have already been indebted to Dr. Gillespie for the psychological section in Taylor's "Medicine," and those who would go further can do no better than read the text-book of psychiatry, in which the subject is expanded with the same clarity.

The book starts with a historical survey of the treatment of mental illnesses, and then proceeds at once to the classification. Here the reader may begin to be alarmed, for psychological, physiological, ætiological and symptomatological classifications are discussed. Read on, reader, without fear, for after the alarm of all these different methods with their huge and curious names (there are three pages of names in the American classification alone), you will come to the classification suggested by the authors, and this you will be able to understand. It is as though the mists are blown away, and we have at last, after a fatiguing journey, a glimpse of the Holy Grail itself.

Some may disagree with the hardness of the line drawn between the psychoses and the psychoneuroses, but none can deny that here we have a foundation from which it is possible to raise a conception of the subject on rational lines, and that is what we have always wanted.

The reader will then be able to proceed with greater confidence to the long chapter on the ætiology of mental disease, which is discussed from the points of view of heredity, alcohol, syphilis, toxins, infections, drugs, fatigue, systemic and deficiency diseases, trauma, age, race, culture, climate, sex and endocrinology. There is then a most valuable chapter on methods of examination of patients, and, having formed this background for the reader, the authors proceed to an explanation and definition of the psychiatric terms in clinical use, and then they come to the subject proper.

Manic depressive psychosis, involutional melancholia, schizophrenia, paranoia and mental illness due to organic disease are dealt with in turn. All of these conditions are illustrated by case histories, most of which make melancholy, and some entertaining, reading. Chapters follow on epilepsy, mental defect, psychoneuroses, and the relation of these and the psychoses to war. As in the third edition there is then an invaluable chapter on the psychiatry of childhood. Penultimately, occupational therapy is discussed, and finally the relation of psychiatry to the law.

So much for the range of the book, and it will be seen that there is much that the general practitioner, who may feel himself able to dispense with the study of the full-blown psychoses, can hardly afford to miss.

The matter is written as incisively as the subject will allow. The difference between the psychoses and the psychoneuroses, for example, which has always been a stumbling-block for the student, is explained clearly in two pages, or a few minutes' reading. Again, the chapter on the psychiatry of childhood is a model of lucidity, and under the authors' guidance the whole subject assumes a definite scientific shape which is too often found wanting in psychiatric literature.

This is not merely psychiatry without tears, but a work of great academic merit, and we recommend it with the greatest confidence. It is well printed and produced, as always by the Oxford University Press, and it seems to us very modestly priced at 18*s*.

A Marriage Manual. By HANNAH STONE, M.D., and ABRAHAM STONE, M.D. Published by Messrs. Gollancz. Pp. 336. *Price* 7*s*. 6*d*.

Nature's Way of Birth Control—A Marital Guide. By V. C. PEDERSEN, M.D., F.A.C.S. Published by Messrs. Williams & Norgate. Pp. 100. *Price* 3*s*. 6*d*.

Principles of Contraception. By JOAN MALLESON, M.B. Published by Messrs. Gollancz. Pp. 160. *Price* 4*s*. 6*d*.

A CHARACTERISTIC of the twentieth century has been the vast eruptions of sexual literature, which have ranged from the purely pornographic to works of the scientific and ethnological value of Ploss and Bartel's. Most of them are sold under a cloak of pseudo-science, and the majority of these used to come here from Germany, often via America. Of late, indigenous products have been more frequent, and every now and then one is given additional publicity when a magistrate considers its scientific cloak too thin to cover its frankly pornographic nature. Of the books reviewed here each has a definite medical or sociological value, and has little to offer the prurient minded.

So numerous are the books on marriage that it is easy to agree with Michael Feilding, the English adaptor from the American of "A Marriage Manual," that the best of the welter alone should be retained and the rest abolished. There are good grounds to consider this book one of the soundest

and most comprehensive and readable volumes on this subject. It preserves an admirably sympathetic tone throughout, has a pleasant anecdotal flavour, and contains a mass of physiology, sociology and moral philosophy in most palatable form. The matter is presented as a series of questions asked of a physician by a young couple about to get married. The questions are clearly grouped and the printing well spaced, with a wide margin in which is indicated in black type the subject of the particular question; for even greater ease of reference there is a comprehensive index.

In the opening chapter a series of questions, mainly eugenic, are answered regarding the fitness of the couple for marriage. Succeeding chapters deal with the normal anatomy and physiology of the male and of the female sex organs, and include accounts of normal pregnancy and labour. A most balanced and comprehensive account of contraception—historical, religious, eugenic, scientific and practical—is given in a succession of answers. The author's views on abortion and sterilisation of the unfit are well argued and sensible, and in chapters on "Art of Marriage" and "Sexual Disharmonies" the practical note is maintained with an attitude which is remarkable for its sanity and freedom from cant. In the terminal chapter on "Health in Marriages," general questions such as sexual continence, size of family, frequency and occasion of intercourse, are discussed more discursively.

This book is written for the lay public, but we doubt if in indiscriminate distribution it will serve its best purpose. It could be used with advantage as a therapeutic instrument by the medical practitioner who may himself neither have the time nor ability to elicit by sympathetic questioning the sexual trouble which may be the cause of a patient's psycho-neurotic symptoms. Sensible explanations of natural conduct and impulses may not be necessary for every young person, but where ignorance and misconception exist "A Marriage Manual" would go far to rationalise a patient's views on sex.

Dr. Pedersen's book, also intended for laymen, is a fervid plea for the use of a method of which we think there is insufficient experience, and which has at present a too flimsy scientific basis. Although Dr. Pedersen's enthusiasm militated against immediate conviction, we were convinced that with further work, laboratory and clinical, it should become possible to ascertain a "safe period" in the menstrual cycle of each woman. It should be added, though, that using this method of plotting the fertile and sterile periods of each woman, the Lambert Clinic founded in Brussels in 1930 claims 90 per cent. of successes, both in the avoidance and production of pregnancy.

It has often been said that nothing new in sex has occurred since the Romans, and the idea of a safe period has been mooted several times in history. Hindu physicians, two thousand years ago, talked of it. Soranos, a Greek, who practised in Rome, was advising his women patients to try it in 100 A.D., but kept no figures. In 1883 Capellmann published a book in which the whole thing was thoroughly worked out and specific days were mentioned as safe, but—and Dr. Pedersen might take warning—Capellmann was quite incorrect.

Modern interest in the idea derives partly from the physiologists, but more from the clinics of Kraus in Austria and Ogino in Japan. The theoretical thesis is that one ovary only ovulates in each menstrual cycle; this ovulation occurs once only and is spontaneous. In a regular twenty-eight day woman ovulation is known to take place between the eleventh and sixteenth day of the cycle after the onset of the menstrual flow. Spermatozoa and the ovum are only viable for two days in the upper genital passages. Two days added to the beginning for survival of the spermatozoa and two days at the end, for the ovum, would constitute the period of fertility, the rest of the cycle being considered safe. It will be seen that, ignoring local conditions in which factors such as Doderlein's bacillus play important parts, the weak points of this theory occur with the words regular and spontaneous. Most women are not twenty-eight day clocks, and the more irregular they are the more difficult is an accurate forecast of their period of sterility. It is necessary for a careful chart of menstrual behaviour to be kept for six to twelve months before estimating the "safe period," and, for the very irregular, only the period immediately preceding menstruation is considered "safe." By "spontaneous" the supporters of this scheme mean that woman does not, as the cat and the rabbit do, ovulate on the stimulus of coitus. The evidence at present all shows that she normally does not, but there is no proof that she cannot. While the possibility exists, use of the "safe period," even after a most careful study of menstrual history, cannot be commended to any cases where there are serious contra-indications to pregnancy.

Dr. Malleson's book is a review of the various methods of contraception, and is intended for the medical man. In it are discussed the efficacy, application, merits and prices of popular trade products. Its detail and practical note commend it, and should be of value to all who are called on to give advice on this subject. The author makes

a very cogent plea that hospitals with obstetric departments where a patient may be told that conception would be fatal or seriously detrimental to her health, should have also Birth Control Clinics, where the patient may receive instruction, which for her is life-saving.

Elementary Surgical Handicraft. By J. RENFREW WHITE, Ch.M., F.R.C.S., F.A.C.S. Published by Messrs. J. & A. Churchill, Ltd. Pp. 250. *Price* 8*s.* 6*d.*

Minor Surgery and the Treatment of Fractures. By GWYNNE WILLIAMS, M.S., F.R.C.S. Published by Messrs. J. & A. Churchill. Pp. 480. *Price* 10*s.* 6*d.*

THE first-mentioned book should be a boon to St. John's Ambulance men. The leading bandage wizard in the Corps is sure to find here an illustration of a method of bandaging with which he is unfamiliar. Elementary surgical handicraft is 50 per cent. bandaging in Mr. White's estimation, if we are to judge by the space devoted to it, and those who wish to learn eleven ways of bandaging the foot and ankle and five for the breast need seek no farther for this information.

Of the remaining hundred and twenty pages, eighty are occupied with knots, ligatures and suturing. The knots described are few and well illustrated. Half a page is devoted each to the reef, the granny and the bow-line, and a page and a half to the clove-hitch. Tendon and intestinal suturing are included, on the score possibly that if the first is elementary then the second probably is also. The student, nurse or ambulance man are given no hints to guide them in their choice of method, and side by side with the lateral intestinal anastomosis by a double row of continuous sutures are Murphy's Button and end-to-end anastomosis by an interrupted row of mattress sutures. Concluding chapters deal with bone grafting and the sterilisation of catgut! In the middle of the book is a section of some value on the control of hæmorrhage. It loses little by its strongly antique flavour and the diagrams of Truesdale's screw, Cheatle's chain, and Petit's tourniquets. A feature of this book was the entertaining quotations which headed the chapters. Perhaps the first, " That sort of bandage is worst which quickly falls off " (Hippocrates), justified the succeeding hundred and twenty pages spent telling how to apply them.

The twenty-first edition of Mr. Gwynne Williams's most deservedly popular book contains some important changes in title and substance. In the title, " Treatment of Fractures " has been substituted for " Bandaging."

That fractures should be included in the work meets with complete approval, and our only doubt is whether so important a subject can be adequately treated in the limited space. Mr. Williams has made an effective summary of the modern treatment of the more common fractures a house surgeon is likely to meet.

The rest of the book, in which house surgeon, casualty officer and dresser will find practical information of value on every branch of their work, has been revised and brought up to date. The book concludes with a section on anæsthetics, local, spinal and general, by Mr. Webber. It includes descriptions of the commoner types of gas and oxygen apparatus, avertin, evipan and methods of resuscitation, and admirably completes a most useful manual.

Foundations of Short-Wave Therapy. By WOLFGANG HOLZER and EUGEN WEISSENBERG. Translated by JUSTINA WILSON and CHARLES DOUSE. Published by Messrs. Hutchinson's Scientific and Technical Publications. *Price* 12*s.* 6*d.*

THIS book on short-wave therapy should be useful as a text-book to both the student of Physiotherapy and the teacher of electrotechnics.

Dr. Holzer has endeavoured to explain clearly and concisely the electrical and physical principles underlying this form of therapy. The diagrams are good and manifold, and if perhaps the first section of the book seems overcrowded with equations, they will receive the approval of ardent physicists.

The dangers of faulty technique have been fully emphasised, and the use of this method of treatment by inexperienced technicians is strongly discouraged. The lay reader will put the book down with the thought that such a work is of too responsible and dangerous a nature to come within the use of the general practitioner, and that only those with extensive training in electro-therapeutics can hope to practise this new form of therapy.

The medical applications are dealt with freely in the section by Dr. Weissenberg. Lists of cases and results are quoted, and the author has had unusual material at hand, especially in the study of treatment for Diseases of the Nervous System. It is to be regretted that dosage is not mentioned.

The book is clearly printed on good paper, is solidly bound, and should be of interest to those already cognisant with short-wave therapy.

R. M. S.

The Common Cold and Influenza, etc. By J. E. R. McDONAGH, F.R.C.S. Published by William Heinemann. *Price* 12*s.* 6*d.*

THE medical profession must already be cognisant of the windy ballyhoo of this author, for in the first page of the prologue of this work he blatantly admits that its title was chosen to attract the eye of the general practitioner rather than to indicate its subject matter.

Mr. McDonagh, in face of all scientific contradiction, has attempted to build up a new conception of bacterial infection, in which disease is divided into two types—that from without and that from within. Most diseases to which man is liable fall into the latter category, and as in most " new systems of disease," the poor, harmless and hard-working colon is the *fons et origo*. He states that B.C.C. in the colon undergo a metatasial change, which may mean a change into almost any known bacterial type. Depending on the change in the colon, the respiratory, cardiac or central nervous systems become diseased by an intricate alteration in their proteins, which is referred to as " hydration." The bacterial visitants remain in the colon, but the diseased tissues become invaded secondarily. How, why and what by is not very clear, but then the whole scheme is so fantastic, so absurd, and so contrary to scientific proof that perhaps it does not matter.

In the prologue the author states that the aim of research should be the drawing of inferences rather than the establishment of proofs. In the face of such a statement there is no need to trespass further on the goodwill of the editor by prolonging the review.

D. P. K.

Text-book of Gynæcology. By WILFRED SHAW, M.D., F.R.C.S., F.C.O.G. Published by Messrs. J. & A. Churchill. *Price* 18*s.*

DR. Wilfred Shaw and Messrs. J. & A. Churchill have produced a new text-book of gynæcology, which caters primarily for those taking the qualifying examinations. It succeeds in this admirably, for the book is not unwieldy (580 pages), is complete, easily read, and is leavened by a number of excellent illustrations.

The sections on Anatomy and Physiology are fuller than in most of the present gynæcological text-books, but the reader is rewarded for his labour with a clear picture of this somewhat difficult region. The present activity of research in the ovarian and pituitary hormones is dealt with in an account of the development of this work, from which emerge the authenticated influences of these glands on the endometrium, and the generally accepted applications of hormone therapy. It is to be deplored that pathology is sometimes scanty, more stress having been laid on the clinical aspects of gynæcology and the details of operative procedure. This is perhaps a defect only from the examination point of view.

It is pleasing to come across a few paragraphs on general prognosis in a text-book of this sort; the quotation from Dr. Johnson: " There lurks, perhaps, in every human heart a desire of distinction, which inclines every man first to hope and then to believe that Nature has given him something peculiar to himself. Every desire is a viper in the bosom who, while he was chill, was harmless, but when warm gave him strength, exerted it in poison," might well appear on the title-page, for it epitomises the open-minded, anti-dogmatic—we had almost said humble—way in which with his subject Dr. Shaw has dealt.

This book should take its place among the established text-books of gynæcology, and is to be highly recommended to the student and the student-practitioner.

W. H. H.

Hydrotherapy and Climatology. By MATTHEW B. RAY, D.S.O., M.D., M.R.C.P. Published by Messrs. Edward Arnold & Co. Pp. 299. *Price* 12*s.* 6*d.*

THE teaching of hydrotherapy is, in this country, very much neglected; it is this which renders this book a particularly valuable one. The average student probably does not receive more than one or two clinical lectures on the subject, while in the wards little more is taught, since for economic reasons spa treatment can rarely play any part in the treatment of hospital patients. In general practice, however, advice on the use and the choice of a spa may be expected. It is for this reason that Dr. Ray's book is to be recommended. The author makes no extravagant claims for this type of treatment, but the chief purposes and merits of all the more important spas are described.

The first part of the book consists of a description of the various methods of treatment employed at spas, and this is preceded by an account of the physiological properties of the skin.

The author then describes the various diseases for which hydrotherapy may be useful, and appends a list of the different spas where suitable treatment may be obtained, explaining the methods employed.

The last part of the book is devoted to climatology. The various climatic factors are discussed, and the indications for each variety of climate is described. This is followed by an account of the

various climatic resorts and their value in disease. In addition, Dr. Ray adds valuable practical information : on the type of bathing, for example, in the case of seaside resorts.

The book is well printed and produced, and the price a reasonable one. W. N. M.

Midwifery for Nurses. By ALECK W. BOURNE, M.B., F.R.C.S. Published by Messrs. J. & A. Churchill, Ltd. *Price 5s.*

THIS book should prove a most useful aid to pupil midwives. It is written in a simple, concise manner, yet omits no detail which is of importance to the midwife. The chapter dealing with urinary excretion and urine tests is, to my mind, particularly clear, and does not involve the student in unnecessary depth of detail, which, in her short time of training, she has very little time to study.

In fact, the whole book appears to have been written with the idea of setting forth the essentials of midwifery as it concerns the midwife, not worrying her with diagnosis and treatment which properly belong to the doctor.

Some excellent exercises are described which the patient may carry out during the puerperium.

The diagrams are most helpful, and there are many of them.

In the chapter on sepsis there will be found reproductions of temperature charts of actual cases.

The chapters on Care of the Child, together with the most common disorders and injuries and their treatment, are clear and should be easily understood by the student.

We commend this book, which is a valuable addition to our midwifery library.

M. G. S.

"Preliminary" Questions and Answers. By FELICIE NORTON. Published by Messrs. Faber & Faber. *Price 1s. 6d.*

THIS small book may serve a useful purpose provided that it is distinctly recognised as an aid to revision and not used as a last-minute substitute for thorough study. Its chief value lies in the possibility of making it a standard against which the nurse may judge her own efforts at answering questions on the subjects for the Preliminary State Examination.

K. P.

Three Cases of Dental Cysts in One Family

By D. J. Wigginton, Esq., L.D.S.

THE extreme rarity with which the familial occurrence of dental cysts is recorded would suggest that any factor of heredity plays but a small part in their pathogenesis. It has yet to be decided whether dental cysts are true neoplasms and also whether any genetic factor is concerned in their causation. A family that has of late come to the notice of the Dental Department is of special interest in this connection.

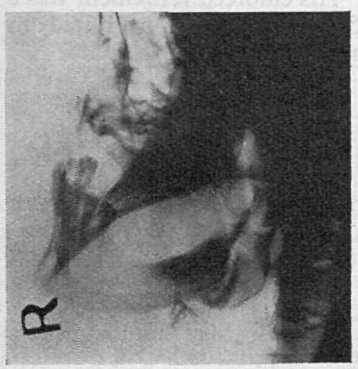

Fig. 1

The family consists of four members—the parents and two sons. The latter bear a marked likeness, both physical and facial, to the father, but not to the mother.

Fig. 2

Thirty years ago the father (æt. 47) had a cyst in the right upper 3 region, and five years ago a cyst in the right ramus of the mandible which was treated by operation and was syringed daily for some time afterwards. Recently he has complained of a dull pain and swelling in the pre-auricular region, impaired movement of the jaw, and a discharge into the mouth. The report on the X-ray was : " Loculated dental cyst of the upper portion of the ascending ramus and coronoid

process of the right side. Small loculated dental cyst of the ascending ramus of the left side." (Figs. 1 and 2.)

Fig. 3

The elder son (æt. 11) had a slowly growing hard swelling of the lower right 3 region, diagnosed as a cyst. The X-ray report was: "Cyst present in the lower 5, 4, 3, 2 region containing the lower right 3." For a boy of this age this cyst was abnormally large. (Fig. 3.)

The younger son (æt. 9) gave no clinical evidence of a cyst, but one was found on radiological

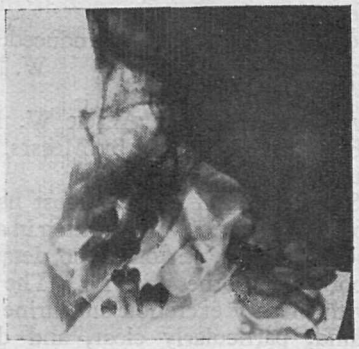

Fig. 4

examination. The report was: "In the right mandible there is a dental cyst in relation with the partly developed third molar—dentigenous cyst." (Fig. 4.) It may be noted that the first and second molars are normal healthy teeth.

I am indebted to Mr. Bull and Mr. Rushton for their permission to describe these cases.

Obituary

Mr. W. L. FLINT

ALL Guy's dental men and many others of 25 years ago will deeply regret to hear of the untimely death, by drowning, of W. J. Flint while bathing at Winkle Spruit, South Africa, on March 10th, 1936.

Flint came to Guy's in 1904 as mechanic in charge of the Prosthetic Laboratory, working under Harry Pillin and other members of the dental staff. In 1907, when an additional laboratory for First Year students was started, Flint was placed in charge, and remained there till he resigned in 1915. He had contracted tubercle. He obtained an appointment in Rhodesia, where he had remained ever since, apparently in fair health.

Flint was a very gentle man and influenced the junior students by the respect he inspired in them. He was a true craftsman in the art of dental mechanics and a very patient and successful teacher. His enforced retirement was a great loss to the School, and was regretted by all who knew him.

G. B. P.

Correspondence and Hospital Information, etc.

The College

To the Editor of the GAZETTE

SIR,—I quite agree with "Carfax."

Build skywards as land too dear to buy near the Hospital.

Gladly help as far as possible.

Yours, etc.,

OLD GUYITE.

Cape Province,
South Africa.

Changes of Address

Geoffrey H. Greenway, Lavender Cottage, Aldwick Road, Bognor Regis. *Bognor* 1404.

R. V. Payne, M.Ch., F.R.C.S., 23, Osborne Road, Windsor, Berks. *Windsor* 1121.

Birth

WANDLESS.—On March 29th, 1936, in a Nursing Home, to Dorothy May (née Rees) and Denis James Wandless, of 14, Belsize Park Gardens, Hampstead—a daughter.

Marriage

GREENWAY—STRIDE.—On December 21st, 1935, Geoffrey H. Greenway, M.R.C.S., L.R.C.P., to Peggy Stride, at Eastergate Parish Church, Barnham Sussex.

EDS. {P. W. C. M. A. P.

GUY'S HOSPITAL MEDICAL SCHOOL—TIME TABLE. SUMMER TERM, 1936.

CHEMISTRY, PHYSICS AND BIOLOGY.

Course	Subject	Lectures	Place	Practical Classes	Place
Pre-Medical Conjoint	Inorganic Chemistry Organic Chemistry	Tues. & Thurs. 10 a.m. First Lecture, Thursday, April 30th Thurs. 2-3 & Fri. 12-1 p.m. First Lecture, Friday, May 1st	Chemistry Theatre Chemistry Theatre	Thurs. 3-5p.m. & Fri.10-12 noon. First Class, Thurs., April 30th. When no Lecture, Practical Class on Thurs. 2-5 p.m.	Chemistry Laboratory
	Physics	Light & Sound. Tues. & Thurs. at 11 a.m. Heat. Tues. at 12 noon. First Lecture, Thurs., April 30th	Class Room IV	Mons. 10-1 p.m. and 2-5 p.m. First Class, Mon., May 4th	Physics Laboratory
	Biology	Weds. 9.30 a.m., Thurs. 12 noon, Sats. 9.30 a.m. First Lecture, Thurs., April 30th	Physiological Theatre	Tues. & Fridays 2-4 p.m. First Class, Friday, May 1st	Biology Laboratory
M.B. London	Inorganic Chemistry	Tues. & Thurs. 10 a.m. First Lecture, Thurs., April 30th	Chemistry Theatre	Mons. 10-1 p.m., Tues. 2-5 p.m. First Class, Tues., April 28th	Chemistry Laboratory
	Physics	Light & Sound. Tues. & Thurs. 11 a.m. Heat. Tues. at 12 noon. First Lecture, Thurs., April 30th	Class Room IV.	Thurs. & Fridays 2-5 p.m. First Class, Thurs., April 30th	Physics Laboratory
	Biology	Weds. at 9.30 a.m. and Thurs. at 12 noon. Sats. at 9.30 a.m. First Lecture, Thurs., April 30th	Anatomical Theatre Class Room IV.	Weds. & Fridays at 10.30 a.m. Sats. 11 a.m. First Class, Friday, May 1st	Biology Laboratory

ORGANIC CHEMISTRY, ANATOMY AND PHYSIOLOGY

Subject	Days and Times	Place	First Class or Lecture
Organic Chemistry (2nd M.B. Part I.)	Lectures, Mon. 1.45 and Weds. 11.30 a.m. Practical. Mondays 2-5 p.m. Thursdays 10-1 p.m.	Chemistry Theatre Chemistry Laboratory	Wednesday, April 29th Thursday, April 30th
Anatomy	Elementary Lectures. Weds. 10.30 a.m. Fri. 9.30 a.m. Practical Anatomy. Daily from 9.30 a.m. to 5 p.m. Revision Classes. To be announced later. Normal Histology. Tuesdays at 2 p.m.	Anatomical Theatre Dissecting Room Demonstration Theatre Histology Laboratory	Wednesday, April 29th Tuesday, April 28th To be announced later. Tuesday, May 5th.
Physiology	Systematic Lectures. (All Students) Mon., 9.30 a.m. Tues., 9.30 a.m., Thurs., 2 p.m. Chemical Physiology— (Junior Students) Tues., 10.30 a.m.-12.30 p.m. *or* 2-4 p.m. Fri., 10.30 a.m.-12.30 p.m. *or* 2-4 p.m. Human Physiology— (Junior Students) Mon., 10.30 a.m. to 12.30 p.m. (for Students taking Organic Chemistry) or 2-4 p.m. Revision Classes— (All Candidates for the July and September Examinations) Lectures Weds., 9.30 a.m., Practical 10.30 a.m. Clinical Physiology— (For all Students in Final Six months of Study), Thurs., 12 noon.	Physiological Theatre Chemical Physiology Laboratory Experimental Physiology Laboratory Experimental Physiology Laboratory Clinical Theatre	Thursday, April 30th Friday, May 1st Monday, May 4th Wednesday, May 6th Thursday, May 7th

SUBJECTS FOR FINAL EXAMINATION.

Subject	Lecturer	Days and Times	Place	First Class or Lecture
Bacteriology	Dr. Knott	*Lectures.* Mondays, Tuesdays and Fridays at 12 noon. *Practical.* Mons., Tues., Weds., Thurs., Fridays and Saturdays at 9.15 a.m.	Anatomical Theatre Pathological Class Room	Tuesday, April 28th Wednesday, April 29th
Psychological Medicine	Dr. Gillespie	*Lectures.* Fridays at 9 a.m. *Demonstrations.* Wednesdays at 3.15 p.m.	Physiological Theatre Bexley Mental Hospital	Friday, May 1st Wednesday, May 6th
Forensic Medicine	Dr. Ryffel	Fridays at 4.30 p.m.	Class Room 3	Friday, May 1st
Operative Surgery	Mr. Doherty	Mondays and Thursdays at 12 noon	Operative Surgery Class Room	Monday, May 11th
Applied Anatomy	Professor Johnston	Wednesdays at 12 noon	Anatomical Theatre	Wednesday, April 29th

GUY'S HOSPITAL DENTAL SCHOOL

TIME TABLE—SUMMER TERM, 1936

*PRE-MEDICAL COURSE

CHEMISTRY, PHYSICS AND BIOLOGY.

Subject	Lectures	Place	Practical	Place
INORGANIC CHEMISTRY	Tuesdays and Thursdays at 10 a.m., commencing on Thursday, April 30th	Chemistry Theatre	Thursdays 3 to 5 p.m. and Fridays 10 a.m. to 12 noon, commencing on Thursday, April 30th. When no Lecture, Practical Class 2—5 p.m. on Thursdays.	Chemistry Laboratory
ELEMENTARY ORGANIC CHEMISTRY	Thursdays, 2 p.m., Fridays, 12 noon, commencing on Friday, May 1st	Chemistry Theatre		
PHYSICS . ..	Tuesdays and Thursdays at 11 a.m., and Tuesdays at 12 noon, commencing on Thursday, April 30th	Class Room IV	Mondays from 10 to 1 p.m.. and 2 to 5 p.m., commencing on Monday, May 4th	Physics Laboratory
BIOLOGY	Wednesdays at 9.30 a.m., Thursdays at 12 noon and Saturdays 9.30 a.m., commencing on Thursday, April 30th	Physiological Theatre	Tuesdays and Fridays 2 to 4 p.m., commencing on Friday, May 1st	Biological Laboratory

*B.D.S. Students see Medical Time-Table

SUBJECTS FOR FIRST PROFESSIONAL EXAMINATION.

Subject	Lectures	Place	Practical	Place
ANATOMY	(1) *Junior Lectures*— Wednesdays at 10.30 a.m., Fridays at 9.30 a.m., commencing on Wednesday, April 29th (2) *Demonstrations*— *(a) Bones— To be announced later. *(b) Soft Parts— To be announced later.	Anatomical Theatre Anatomy Demonstration Theatre Anatomy Demonstration Theatre	Daily from 9 a.m. to 5 p.m., commencing on Tuesday, April 28th Dental Students who have completed One Term's work in the Department, must report in the Dissecting Room and enter their names for "Parts" on Tuesday, April 28th, at 10 a.m., or 2 p.m., or on Wednesday, April 29th, at 10 a.m.	Dissecting Room
PHYSIOLOGY	Mondays at 9.30 a.m. and Tuesdays at 9.30 a.m., commencing on Tues., May 5th	Anatomical Theatre	Thursdays at 10.30 a.m. to 12.30 p.m., commencing on Thursday, April 30th	Experimental Physiology Laboratory
DENTAL METALLURGY ..	Mondays and Wednesdays at 9.30 a.m., commencing on Wednesday, April 29th	Chemistry Theatre		
DENTAL PROSTHETICS ..	Fridays at 9.30 a.m., commencing on May 1st	Pathological Theatre	Fridays at 1.30 p.m., commencing on May 8th	1st and 2nd Years' Laboratory

* N.B.—Students in their Second Term of Human Anatomy must attend (*a*) and may attend (*b*) if they so desire.
Students in their Third Term of Human Anatomy must attend both (*a*) and (*b*).

SUBJECTS FOR SECOND AND FINAL EXAMINATION.

Subject	Lecturer	Days and Times	Place	First Class or Lecture
†MEDICINE .. .. (Lectures and Demonstrations)	Dr. Douthwaite	Tuesdays at 12 noon	Preliminary Clinical Period Class Room (Top Floor, Out-Patients)	Tuesday, May 12th
*RADIOLOGY	Mr. Worth	Saturdays at 9.30 a.m.	Anatomical Theatre	Saturday, May 2nd
*DENTAL MATERIA MEDICA ..	Mr. Hooper	Tuesdays at 4 p.m.	Anatomical Theatre	Tuesday, May 5th
†GENERAL BACTERIOLOGY ..	Dr. Knott	Mondays, Tuesdays and Fridays at 12 noon	Anatomical Theatre	Tuesday, April 28th
*SPECIAL BACTERIOLOGY ..	Mr. Bulleid	*Lectures* Mondays at 2 p.m. *Practical* Mondays at 3 p.m., and Thursdays at 2 p.m.	Pathological Theatre Pathological Class Room	Monday, May 11th Monday, May 4th

†To be attended by Students taking the Second Professional L.D.S. Examination in December, 1936, March or July, 1937.

GUY'S HOSPITAL GAZETTE

A Journal of Medicine, Surgery, Dentistry and Hospital News.

PUBLISHED FORTNIGHTLY.

Volume L *9th May 1936* *Number 1247*

PASSIM

WITH the approach of Spring—for in the month of May every editorial starts thus—the Hospital is in blossom. The Medical Block is resplendent with new paint within, the Front Quadrangle is in process of decoration. Perhaps the brightest flower in the garden was the Combined Round last week, one of what appear to be known outside the Hospital as "Dr. Hurst's Tuesdays." Hither came the "Medical Pilgrims" on a special visit. We had hoped to see a body of physicians in sandals, with phylacteries, scrips, staves and stethoscopes. In that respect we were disappointed, but, we hasten to add, in that respect only. Prominent among the pilgrims was Professor Schnapper, from Amsterdam, and it pleased us to see again Professor Ryle and Professor Witts, who, with Dr. Hurst, are the English representatives of this exclusive and distinguished society. Sir Thomas Barlow, Professor Wright, Dr. Conybeare, Dr. Grant and Dr. Knott also attended.

The Round was followed by a very fine pathological demonstration in the Histology Laboratory. The Combined Round has long been an institution for which the Hospital is famed, but the presence of so many of the distinguished made this an especially great occasion.

WE are indebted to Professor F. G. Parsons, of St. Thomas's Hospital, for a remarkable document. He has discovered in his collection an old lease of 1557 which is of interest to us in that it deals with the letting of the site on which Guy's now stands. We reproduce a facsimile of the original lease, part of which Professor Parsons has kindly translated from the Maryan script. We offer no prize for a completion of the translation, but those with good eyesight may find in it occupation for the week-end.

A PART of the Augean stables has now been cleaned, and the Reading Room is again open. There are more armchairs, which are extremely comfortable, and the sofas have been refurbished. The atmosphere of comparative civilisation lent by the introduction of curtains has been somewhat offset by the simultaneous introduction of some immense spittoons. No, it is not the spread of transatlantic customs; they are there only temporarily until the large number of ash-trays that has been ordered is delivered.

The great feature of the improvements is, however, the complete carpeting of the floor, which not only adds to the comfort of the appearance, but also renders the room almost noiseless. The echoing tramp of feet that used to shatter the silence has been subdued, and in order further to obviate noise the door at the end opposite the Restaurant has been kept locked. This has proved a matter of contention. It means that those who live on the first or ground floors must, in order to reach the Restaurant, either go outside—into the rain or cold, it may be—or ascend to the second floor, owing to the quaintness of the architectural arrangement. It also means that those who wish to descend into the nether regions from the Restaurant must also make a journey round. When one realises that this may involve a passage through the Spit, they have our sympathy. But this matter is to be arranged in accordance with the wish of the majority.

It is perhaps significant of the attitude of a certain, and fortunately small, section of the Club that the first intimation received by the Secretary of the Students' Club that this closure of the door did not meet with unanimous approval was an ultimatum that if it were not opened it would be

broken down. Now, gentlemen, come, come, come! This sort of behaviour is no doubt only to be expected, and emanates from the sort of mind that has allowed the College to remain what it has been for the last fifty years, so that it would be a mistake to take it seriously, but now that we are entering on this era of mild progress and our standard of living is to be improved, we may as well raise a little that standard of behaviour which obtained before the stables started to be cleaned. Let us not grind into the fabric of the carpet our cigarette ends and saliva, and let us suggest, instead of threatening, that co-operation follow and harmony be the result.

This beautiful thought leads us naturally to the subject of the pictures. The introduction of the Monet and van Gogh prints has caused dissension. It is a remarkable thing, this introduction of such works. Can one imagine such a thing happening at Guy's thirty years ago? Possibly an Alma Tadema or two, conceivably an Albert Moore, might have been chosen, but one doubts it. Perhaps the improvements in printing have contributed to the familiarity with great works which the public enjoys, perhaps the greater frequency of international exhibitions, but whatever it may be there are the prints, and whatever their virtues or otherwise we feel it a pity that we should hear of a plot to have them carried away like some Houston sisters, for there cannot be even a ransom. The huntin' faction would like a few sportin' prints, or some Rowlandsons; the traditional faction would like a plan of the Hospital and a portrait of the Founder, and both may think the present prints greenery-yallery in their freshness. But it is not for us to moralise.

There remains the "Spit." Decoration of this is shortly to be undertaken, and we publish a letter elsewhere in this connection. Our best thanks are due to Mr. Slesinger for his offer of a prize for a mural decoration. What will happen while the Spit is closed we shudder to think, but the inconvenience will be short and, we hope, lightly borne, for are we not sustained by hopes of the future? In the meantime we pray that the Sub-Committee will be meeting over this matter of increasing the sitting accommodation both for those who sit and eat and for those who just sit.

And even though we are now all yawning over this matter of the College, there is just one other thing. Those hat-stands. The summer is upon us, and it is only by an effort of memory that we can recollect the appearance of the entrance to the Restaurant and Spit in winter. The litter of coats and hats piled upon the hatstands and upon the pegs, like goods on a second-hand stall in a rummage sale, is not merely unsightly but obstructive to the passer-by. Those in the lunch-time mob who are pressed to the wall are liable unintentionally to leave a trail of coats in their wake, over which pursuing Queen Elizabeths tread none too daintily. It is true that it is now the summer, when the only occupants of the pegs, perhaps, are those clothes which have been abandoned as too old to sell. There is still, we believe, even an editorial cast-off of three years' standing—a coat which was much *à la mode* in 1920—but which has stayed on its peg since 1932, and we have watched the dust accumulate on one undisturbed bowler hat since March of 1933. Now where can accommodation for clothes be provided, such that it is convenient and unobtrusive? We repeat the suggestion that we have made before, that the well-known plague pit on the ground floor facing on to Sparrick's Row, which should long ago have been condemned as unfit for human habitation, should be used for the storage of coats. Could we not there deposit these "winter weeds outworn"? It is true that it is a long time to the winter, but while we are about it, could we not make this additional improvement? Nor would the provision of an attendant be vital, for the liability to theft would be no greater than at the moment.

▭

WE heartily congratulate Dr. C. P. Blacker, the General Secretary of the Eugenics Society, Dr. E. Denny-Brown, Dr. R. N. Ironside and Dr. E. C. Warner on their election as Fellows of the Royal College of Physicians. We also congratulate Mr. C. G. Baker and Mr. B. McArdle on their admission as Members.

We congratulate Mr. T. H. Shire on winning the Beaney Prize in Pathology for 1936.

▭

WE append elsewhere an account of the Hospital Athletic Sports, held at Honor Oak Park on Saturday, May 2nd. The performances were creditable and speak well for the future. We proffer our congratulations to the Darts Club on their success in the mile relay race.

▭

WE would remind readers that the entries for the Gold Medal in Obstetrics close on Monday, May 11th. The examination is to be held on May 25th.

Obituary

DR. HAMBLIN SMITH

(Reprinted from the "Lancet")

W. N. E. writes: "It was on account of the increasing importance of the medical work at Birmingham prison that it was decided in 1920 to send a medical officer there with special knowledge of mental diseases, and Hamblin Smith was the natural selection for the post. His ripe experience, clinical acumen, and sound judgment were invaluable assets in the daily work of a prison, and enabled him to determine with accuracy the mental states of the trial prisoners under his care. His opinion in the difficult and intricate problems connected with criminal responsibility was relied upon in the courts and by the Prison Commissioners, and his concise and complete reports were models of what a medico-legal report should be. He had not only the prisoners from the Birmingham area but also those sent from outlying prisons for medical observation, and he visited adjacent prisons to confer with their medical officers in capital cases. He was a loyal colleague and in all his work combined charity to the frailties of his patients with jealousy for the reputation of the service. An omnivorous reader of philosophy and speculative psychology, he maintained a clear distinction between assumptions and facts and his theoretical inclinations never obtruded on his daily duties. It was this scientific outlook tempered with common sense that captured and retained the confidence of the Courts he worked in."

On the Acute Abdomen:

A REVIEW OF 122 CONSECUTIVE CASES

By S. H. Wass, Esq., F.R.C.S.

THE acute abdomen is a problem ever-present in the practices of the general practitioner, consulting surgeon, consulting physician, and even of the gynæcologist and the neurologist. As a student, in the present-day congestion of the medical profession, one sees comparatively little of this important branch of surgery; indeed, since such cases have the unfortunate habit of coming into hospital after the normal working hours of the student, pre-qualifying experience is often limited to that obtained in a meagre two weeks' "take-in." This comparative lack of student-experience in emergency surgery I make my excuse for reviewing this small series of cases. If it be fully realised at the outset that a series of 122 cases cannot be truly representative of the relative incidence of the various acute abdominal conditions, nor of their mortality rates, then no harm can come from such a review—and possibly some little benefit may be derived.

The cases under review comprise 122 consecutive acute abdominal emergencies with which I, personally, dealt during the course of a series of surgical "locums" over a period of five months in three municipal hospitals in and around London. Associated with this series of cases were 14 others which simulated the acute abdomen sufficiently closely to be admitted by a responsible medical officer to a surgical ward; these cases will be studied separately in an endeavour to discover some of their pitfalls.

Reference to Table A shows the relative incidence of the various abdominal emergencies occurring in the series. It will be noticed that two common conditions, namely, renal colic and biliary colic—have been omitted entirely, as they are not usually considered to belong to the "acute abdomen," in the sense that they do not require immediate surgical interference. It will also be

TABLE A

Analysis of 122 consecutive cases of acute abdominal emergency.

Condition.	*No. of cases.*
Acute appendicitis	62
Acute intestinal obstruction (from all causes)	25
Perforated peptic ulcer	9
Acute cholecystitis	7
Acute salpingitis	7
Acute diverticulitis	2
Acute pancreatitis	2
Primary perinephric abscess	2
Pneumococcal peritonitis	1
Ruptured ectopic gestation	1
Twisted ovarian cyst	1
Ruptured ovarian cyst	1
Ruptured spleen	1
Ruptured stomach	1

noticed from Table A, and from the more detailed analyses later, that the incidence of rarities in this series is high, and in order that they shall not appear too prominent I shall content myself with merely mentioning them, confining any discussion to the commoner acute abdominal conditions.

CONDITIONS SIMULATING THE ACUTE ABDOMEN

The 14 cases simulating the acute abdomen which were associated with this series are shown in Table B. Divers conditions find their way into this group, but, with one possible exception, they are all conditions which, as we have been warned by our teachers and text-books, enter into the differential diagnosis of the " acute abdomen." The possible exception to which I refer occupies first place in Table B, namely, acute tonsillitis in the adolescent or adult presenting abdominal pain as the chief symptom and thereby simulating acute appendicitis. Whilst such a syndrome in children is recognised in pædiatric works, I cannot recollect its being mentioned with reference to adolescents or adults in any surgical text-book I have read. In addition to the two such cases in this series I have seen several elsewhere, all occurring between the ages of 15 and 30; the principal complaint is abdominal pain in the region of the umbilicus, with some vague generalised abdominal tenderness, but no physical signs by which the appendix might be incriminated. On completing the examination of the patient the fauces are seen to be definitely injected, and follicles may be present on the tonsils; only at this stage and in response to a leading question may the patient admit to a sore throat. The cause of the predominant abdominal pain in these cases is difficult to understand, but I feel the syndrome deserves more prominence than it has achieved.

TABLE B

Analysis of 14 cases simulating the " acute abdomen."

Condition.	*No. of cases.*
Simulating acute appendicitis :—	
Tonsillitis, with associated abdominal pain	2
Pleurisy	2
Acute pyelitis	2
Gastro-enteritis	2
Tuberculous mesenteric glands	1
Small intestine colic	1
Simulating other conditions :—	
Coronary thrombosis	3
Uræmia	1

With regard to the remaining conditions in Table B, we are all well aware of their existence and vagaries, yet, I regret to say, four of these cases were submitted to needless abdominal operation on the mistaken diagnosis of acute appendicitis. The cases upon which this enthusiastic misuse of surgery was inflicted comprise two cases of pleurisy, one case of tuberculous mesenteric glands in a child, and one case of unexplained small intestine colic in an adult. In the two latter cases one hopes no harm was done; in the two former, whilst recovery occurred in spite of the treatment, one feels distinctly guilty in advising inhalation anæsthesia as a therapeutic measure for such cases! No extenuation can be claimed, except to state that the pleuritic chests *were* examined before operation; in one case the rub appeared the following day, but in the other it failed to appear at all, though X-ray later showed a large patch of consolidation at the right base.

The obvious moral of these conditions is that in order to eliminate such mistakes from one's practice a careful and accurate history must be taken and a complete examination of all the systems of the body must be made, remembering especially that bugbear of the ward clerk, urine testing. By these methods it was possible to stay the " cutting hand " in 10 of the cases in Table B, thereby preventing what might easily have been four catastrophes had the last four patients in the series been operated upon.

The appearance of three cases of coronary thrombosis in Table B is interesting, and the diagnostic problems of this condition are illustrated by the fact that in each of the three cases a different abdominal emergency was diagnosed by the admitting officer concerned. One case was diagnosed as a perforated peptic ulcer, one as acute intestinal obstruction, and one as acute pancreatitis; all three were confirmed as coronary thromboses at autopsy. The features I found most useful in arriving at a diagnosis in these cases were (1) the point in the history that the pain *began* behind the sternum rather than in the abdomen, (2) the absence of any *definite* abnormal physical signs in the abdomen, and (3) the presence of slight but definite signs of cardio-vascular disease, in the form of cyanosis, dyspnœa, rapid feeble pulse, distant heart sounds, etc., two or more of which were present in all the cases.

The case of uræmia was admitted to hospital as one in the last stages of acute intestinal obstruction, *i.e.*, comatose, with gross abdominal distension and fæculent vomiting. No previous history was available, but complete examination revealed enlargement of the left ventricle, a greatly raised blood pressure, and urine containing albumin

along with numerous granular casts in the centrifugalised deposit. At autopsy these findings were confirmed and the kidneys, as expected, were of the small granular variety.

ACUTE APPENDICITIS

Acute appendicitis rightly occupies first place in any list of acute abdominal emergencies, and in the present series it formed just over 50 per cent. of the total number of cases. To this condition, above all others in the acute abdomen, may be applied the late Professor Pembrey's dictum, "Common things commonly occur." The person diagnosing an "apoplectic ovary," acute inflammation of Meckel's diverticulum, or a leaking ovarian cyst (without any evidence of the presence of a cyst), may score a triumph over his colleagues on *one* occasion, but on ninety-nine other occasions the more rational diagnostician will prevail.

Furthermore, in this respect, I should like to deprecate the wholesale diagnosis of acute salpingitis in the female merely because of the presence of a vaginal discharge, when a corresponding abdominal picture in the male would unhesitatingly be diagnosed as acute appendicitis. When a case of suspected appendicitis in the female presents neither a text-book history nor obvious signs of gross peritonitis, there seems a peculiar tendency among dressers to offer up a prayer for the presence of a vaginal discharge so that they may diagnose acute salpingitis, thereby often incriminating perfectly normal Fallopian tubes. In my experience *proven* acute salpingitis is a relatively rare condition, whereas it is the exception in hospital practice for a vaginal discharge to be absent; the presence of the latter, therefore, should not preclude the diagnosis of acute appendicitis.

In this small series of cases I have been impressed by the importance of making a diagnosis in early cases of acute appendicitis on the history alone, with practically no confirmatory abnormal physical signs. In fact, the pre-operative conception of the mild pathological state of the appendix in such cases is frequently far from correct. The presence of a typical Murphy's syndrome together with slight tenderness over the appendix is ample evidence of acute appendicitis, without any confirmatory muscular rigidity or elevation of the temperature or pulse-rate.

In other cases I have been impressed by the frequent occurrence of two physical signs which are rarely mentioned in text-books, namely, tenderness over the quadratus lumborum and rigidity of that muscle. It has been my experience that the commonest position of the pathological appendix is the retrocæcal one, and it seems logical that in this position the physical signs of tenderness and muscular rigidity should be more marked over the quadratus lumborum than over the anterior abdominal muscles, yet many writers fail to mention this important fact. I am convinced that failure to examine this region of the body is a potent cause of "missed" diagnoses, and without such an examination it must be practically impossible to make any attempt to forecast the position of the appendix—a refinement of diagnosis which I feel to be distinctly desirable.

Several cases in Table A, in addition to those listed in Table B, were operated upon as cases of acute appendicitis, the correct diagnosis only being made after laparotomy. These comprise the single case of pneumococcal peritonitis, the case of ruptured ovarian cyst, one case of acute salpingitis, one case of small gut adhesions, and both cases of primary perinephric abscess. Whilst a correct pre-operative diagnosis in these cases would have been an academic nicety, in most of them it would have been an impossibility; if such conditions as the above were to be diagnosed with any degree of regularity, one's percentage of correct diagnosis would rapidly decrease. I think less is learnt from such cases than from the cases in Table B, for in the former, in all probability, the same original diagnosis would be made again, whereas in the latter one hopes in future to be able to make a correct pre-operative diagnosis.

In the 62 cases of acute appendicitis in this series, males showed a preponderance over females in the proportion of $2\frac{1}{2}$ to 1; age incidence showed two-thirds of the cases occurring between the ages of 10 and 30, the remainder being equally distributed over the other decades up to 70. With regard to the duration of the attack before operation the series may be considered an unfavourable one. Only two cases were admitted to hospital within 12 hours, and only a further 20 within 24 hours of the commencement of the attack; nine cases were first seen between the second and third day, two cases between the third and seventh day, and in five cases the disease had been in progress more than a week. Fortunately the mortality in the series was nil, but this cannot be considered at all representative, nor can it be put forward as an argument for the immediate operative treatment of all cases of acute appendicitis, which treatment, however, I strongly advocate.

In spite of the occurrence of 16 cases in which the acute inflammatory process had been in progress longer than the traditional 48 hours, only three cases were considered suitable for the delayed or Ochsner-Sherren treatment. In these

three cases a well-defined lump was present in the right iliac fossa and the inflammatory process, as well as being definitely localised, was showing signs of lessening in intensity. In all three cases the lump disappeared under conservative treatment, and the patients got quite well, being discharged with instructions to return in three months for a " simple " appendicectomy. One of them returned in two months with general peritonitis 12 hours after the onset of his second attack! The others are, as far as I know, still serving their three-months' sentence. The remaining 13 cases were all operated upon immediately, either because general peritonitis was already present, or because the inflammatory process showed signs of spreading, or because, in relation to the severity of the patients' local or general condition, one did not feel sufficient confidence in the Ochsner-Sherren treatment. The primary operative procedure in all these cases was immediate drainage of the abdomen; in cases of general peritonitis the appendix was removed wherever possible, but in cases with a localised abscess no attempt was made to *search* for the offending organ; if it presented in the wound it was removed, otherwise the abscess was simply drained. No catastrophes occurred in these 13 cases. The period of convalescence was necessarily longer than that of a straightforward early case, but was, as a rule, shorter than that necessary for the Ochsner-Sherren treatment. It was possible to remove the appendix, without any danger of breaking down Nature's barrier, in all but three cases. Even in these a feeling of safety was induced by the knowledge that the " evil humours " were draining to the surface and not shut up inside the abdomen at the mercy of the Oschner-Sherren treatment; all three ceased discharging within three weeks and returned for a safe appendicectomy later.

In Table C the conditions found at operation upon these 62 cases of acute appendicitis are arranged in four groups.

TABLE C

Conditions found at operation in 62 cases of acute appendicitis.

Group.	*Condition found.*	*No. of cases.*
1	Acute appendicitis—inflammation confined to the appendix itself	22
2	Acute appendicitis with local peritonitis ..	21
3	Acute appendicitis with local abscess ..	9
4	Acute appendicitis with general peritonitis	10

Group 1 comprises those cases in which the inflammatory process was confined to the appendix itself, and includes all grades of severity up to the turgid, congested, œdematous appendix covered externally by an exudate of lymph. Group 2 consists of those cases in which the inflammatory process had spread beyond the confines of the appendix, resulting in a local peritonitis with fibrinous adhesions to surrounding viscera or peritoneum and congestion or œdema of the walls of the cæcum or terminal ileum. In the cases in Group 3, a localised abscess had formed, which was, however, walled off from the general peritoneal cavity. Group 4 comprises those cases in which there was no localisation of the inflammatory process and in which general peritonitis, with a generalised purulent exudate and reddening of the whole visceral peritoneum, had ensued. It will be noticed that roughly one-third of the cases fall into Group 1, one-third into the relatively less favourable Group 2, and the remaining one-third into the even less favourable Groups 3 and 4. In view of the condition found at operation, drainage of the peritoneal cavity was considered necessary in a high proportion of cases. In all cases this was obtained through separate " stab " incisions into the pelvis or into the appendix bed.

Whilst touching the subject of drainage, I should record the immense value I place upon drainage of the abdominal wound itself. It was my practice in all cases in this series to insert a small glove drain, or a single corrugation of corrugated rubber, in the wound in all cases of general peritonitis, and in any other case in which there was the slightest suspicion that the wound had been soiled during removal of the appendix. In the case of a grid-iron incision the drain was put down as far as the closed peritoneum and brought out through all the muscular layers to the lower corner of the wound; in the case of a paramedian incision two such drains were employed, one lying behind the rectus muscle against the posterior rectus sheath and one lying in the subcutaneous tissues. These drains were fastened with a stitch at the lowest end of the incision and were left *in situ* as long as any stitches remained in the wound. The effect of such drains is to direct all inflammatory exudate to the lowest corner of the incision, and when they are removed a small sinus exists, which rapidly closes. With this procedure there was no case of serious wound infection in the whole series; the distressing sequence of infection, breaking down of the wound, prolonged discharge of pus, and lengthy convalescence during which the wound slowly granulates, with a resultant weak and unsightly scar, was completely absent.

ACUTE INTESTINAL OBSTRUCTION

The 25 cases of acute intestinal obstruction occurring in this series, together with their mortality rates, are shown in Table D. Strangulated external hernia rightly takes pride of place in this group of cases, but the incidence of acute obstruction from carcinoma of the colon is probably too low. The occurrence of one case of volvulus of the pelvic colon and two cases of strangulated internal hernia in such a small series is, of course, an absurdly high proportion.

TABLE D

Analysis of 25 cases of acute intestinal obstruction.

Condition.	*Cases operated upon.*	*Died.*
Strangulated external hernia (inguinal, 7; femoral, 3; ventral, 1; umbilical, 1; interstitial, 1)	13	4
Carcinoma coli (pelvic, 2; hepatic flexure, 2)	4	2
Small intestine obstruction (adhesions, 2; Meckel, 1)	3	—
Intussusception (ileocæcal, 1; colo-colic, 1)	2	—
Strangulated internal hernia (duodeno-jejunal fossa, 1; ileo-cæcal fossa, 1)	2	1
Volvulus of pelvic colon	1	1

In this series of cases there were eight deaths, representing a total mortality rate of 32 per cent. Resection of bowel was necessary in five cases of strangulated external hernia with three deaths, a mortality rate of 60 per cent. The one remaining death in the external hernia group was due to paralytic ileus, and occurred on the third day after operation. The case of volvulus of the pelvic colon died from hypostatic pneumonia, and the three remaining fatal cases (one of internal strangulation and two of carcinoma of the colon) succumbed to the toxæmia of the obstruction.

The mortality rate from intestinal obstruction remains distressingly high in all published statistics, in spite of numerous pre-operative, operative and post-operative measures introduced in an effort to reduce it. In this respect the problem of anæsthesia is always a difficult one. In this series the following anæsthetics were employed :—

Gas and oxygen alone	6 cases.
Gas and oxygen, plus minimal ether	6 cases.
Local alone	2 cases.
Local, plus gas and oxygen	1 case.
Spinal	10 cases.

In the eight fatal cases the method of anæsthesia employed was :—

Spinal	4 cases.
Gas and oxygen alone	2 cases.
Gas and oxygen, plus minimal ether	1 case.
Local alone (blind cæcostomy)	1 case.

The advantages of spinal anæsthesia in cases of acute obstruction are well known, but it is by no means the entire solution of the anæsthetic problem. It is ideal from the operator's point of view, and prevents inhalation of vomitus, but does not prevent *all* post-operative chest complications; in fact, if the requisite level of anæsthesia is obtained, chest complications are often encouraged by the impairment of respiratory movement, as instanced by the death from hypostatic pneumonia of the case of volvulus in this series. Moreover, in my opinion, this form of anæsthesia is definitely contra-indicated in cases showing any degree of collapse, especially in the aged patient; if administered, however carefully, to these patients, the fall in blood pressure induced may be the deciding factor in producing the fatal issue. The dangers of inhalation anæsthesia, especially that of inhalation of vomitus, are equally feared, but they may be considerably reduced by the use of gas and oxygen alone, wherever possible, and by the free use of the stomach pump both before and in the course of the operation. Local anæsthesia is ideal, but its use is practically limited to cases of small external hernia, where no great relaxation is required and no intra-abdominal manipulation necessary. I would sum up by advocating local anæsthesia alone wherever possible; spinal anæsthesia for the adult manifesting relatively little shock; and gas and oxygen inhalation anæsthesia, combined with free use of the stomach pump, for all other cases, requisite relaxation being obtained by supplementary local infiltration of the muscles or by the use of minimal quantities of ether.

The question of resection of bowel arose in five cases in this series, all of which were strangulated external herniæ. These cases are further analysed in Table E.

The severity of the operative procedure in this type of case, as compared with simple relief of obstruction without resection, must necessarily cause a leap in the mortality rate. In addition, the acute symptoms have usually been present much longer than in a case of simple obstruction, and the general condition of the patient is, therefore, much less favourable. The surgical axiom in such cases is to do as little as possible compatible with relief of the obstruction. In cases 1 and 2, both apparently hopeless at the outset, this axiom

was faithfully observed; a rapid resection was performed and Paul's tubes were tied into both ends of the gut, no attempt being made to restore continuity. Case No. 2 recovered and the fæcal fistula was successfully closed at a second operation. In Case No. 3 the general condition of the patient was thought to warrant the carrying of the operative procedure a little further. Accordingly a side-to-side anastomosis around the gangrenous loop was performed, and after being brought to the exterior the gangrenous bowel was resected and Paul's tubes tied in both ends. This case proved fatal, and it is possible that the extra time taken in performing the anastomosis just weighed the balance on the wrong side; had I been content with the more simple expedient of Cases 1 and 2, the scale might have been turned the opposite way. In Cases 4 and 5 the general condition of the patients was relatively good and offered a sporting chance of "getting away" with an anastomosis. The same procedure—end-to-end anastomosis with an ileostomy above—was adopted in both cases, one case recovering. Here again, in the fatal case, the same criticism may be applied—that too much was attempted. In all such cases, however, a quick decision has to be made when the condition of the bowel is ascertained at operation, and it is here that clinical acumen, based on experience alone, provides the correct answer to the problem. In the absence of the obvious ideal of earlier diagnosis to eliminate resection altogether, clinical acumen is the chief weapon we possess to decrease the mortality of such cases of acute intestinal obstruction.

TABLE E

Analysis of five cases of strangulated external hernia requiring resection of bowel.

Case No.	*Diagnosis.*	*Duration of symptoms.*	*Condition of patient.*	*Anæsthetic.*	*Operative procedure.*	*Result.*
1. M. 76.	Strangulated L.I.H.	9 days.	Hopeless.	Spinal.	Resection of omentum and 24 in. of small bowel. Drainage of both ends of gut. No attempt at anastomosis.	Died 1 hr. after operation.
2. M. 69.	Strangulated R.I.H.	3 days.	Apparently hopeless.	Local, plus gas and oxygen.	Resection of omentum and 48 in. of small bowel. Drainage of both ends of gut. No attempt at anastomosis.	Recovery.
3. F. 57.	Strangulated ventral hernia.	2 days.	Poor.	Spinal.	Resection of 8 in. of small bowel. Side-to-side anastomosis with drainage of both ends of gut.	Died on 3rd day from ileus.
4. F. 55.	Strangulated R.F.H.	36 hours.	Fair.	Spinal.	Resection of 6 in. of small bowel. End-to-end anastomosis, plus ileostomy.	Recovery.
5. F. 44.	Strangulated L.F.H.	3 days.	Fair.	Gas and oxygen.	Resection of 4 in. of small bowel. End-to-end anastomosis, plus ileostomy.	Died 8 hours after operation.

PERFORATED PEPTIC ULCER

Nine cases of perforated peptic ulcer occurred in this series, of which six were duodenal and three gastric, one of the latter being a perforation into the lesser sac. Here again the figures are obviously not representative, the relative incidence of perforated gastric ulcers being far too high. Seven of the cases were operated upon within 12 hours, and one within 18 hours of perforation; the only fatal case in the series was that of a man aged 61 who was not admitted to hospital until 36 hours after the onset of symptoms, and who was operated upon with a pre-operative diagnosis of acute intestinal obstruction.

In all cases the simple expedient of oversewing the ulcer was adopted, together with drainage of the pelvis by a suprapubic stab. Here again the value of draining the paramedian incision, by the method described in the section on acute appendicitis, was demonstrated. In no case was there

any suppuration in, or breaking down of, the abdominal wound, and all the wounds were soundly healed and dry within 18 days. In one case the suturing of the perforation completed an element of pyloric stenosis, and a successful gastro-enterostomy was performed three weeks later.

ACUTE CHOLECYSTITIS

Eliminating all cases of simple biliary colic, seven cases of acute cholecystitis were encountered in this series. In all seven cases expectant treatment was adopted in the first instance and in six of them the acute condition settled down completely. In the seventh case resolution failed to occur, elevation of temperature and local abdominal signs persisted for a fortnight; after the fourteenth day day the temperature became " spiky," abdominal rigidity was still present, and the general condition of the patient appeared slightly less favourable. Accordingly, on the seventeenth day, laparotomy was decided upon, and a large abscess in the right posterior subphrenic space was opened and drained, with a successful result.

Of the six cases which responded to conservative treatment, two were discharged as unfit for operation on account of their poor general and cardio-vascular condition. The remaining four cases were submitted to cholecystectomy when the acute condition had subsided; evidence of recent acute inflammation, combined with gall-stones, was found in all four cases.

There is a surgical school which advocates immediate operative treatment for all cases of acute cholecystitis. This principle is contrary to the teaching at Guy's, and the examination candidate is liable to meet trouble if the examiner belongs to the operative school of thought and the candidate cannot produce a sound argument in favour of his own method of treatment. The operative school assert that acute cholecystitis, like acute appendicitis, is a serious condition liable to lead to perforation of the viscus and death from peritonitis, and they argue, therefore, that the inflamed viscus should be removed or drained at the earliest opportunity. Whilst not denying the fact that perforation of an acutely inflamed gall-bladder can and does occur, I would dispute the fact that it occurs at all frequently. In the great majority of cases the acute condition settles down completely, and even if resolution does not occur, pus formation is more often localised than generalised in the peritoneal cavity. This chance of a favourable course of the disease appears to be a sound argument in favour of conservative treatment. If, as is probable, the acute inflammation does resolve, cholecystectomy in the quiescent stage is a much easier operation than cholecystectomy in the presence of acute inflammation, with the added risk in the latter case of spreading infection to the general peritoneum, and thereby *causing* a general peritonitis which probably would not have occurred had the case been treated conservatively. Again, the question of anæsthesia is important; the patients who develop acute cholecystitis are notoriously bad operative " risks " at the best of times, and when they are inflicted with a superadded acute exacerbation of their gall-bladder disease it seems that the risk must be even greater.

These arguments, then, may be put forward in favour of the conservative treatment of acute cholecystitis, but it must not be forgotten that this form of treatment *can* go wrong. Therefore a careful watch must be kept on the patients, and one must be ready to operate if signs of spreading peritonitis develop, as evidenced by a rising pulse rate, increased vomiting, increasing rigidity and impairment of the general condition of the patient.

ACUTE PANCREATITIS

Two cases were diagnosed as acute pancreatitis in this series, but neither was of the fulminating variety and neither was operated upon, so that the diagnosis remains in some doubt, but the evidence is very striking. Both patients were female, in the fifth decade of life, and both were first seen between two and three days after the onset of a sudden attack of acute upper abdominal pain, associated with vomiting. They had both been seen by their private doctor at the onset of the illness, and in neither case did the doctor concerned suspect a perforated peptic ulcer. The abdominal pain and tenderness persisted, however, together with some vomiting, and they were later sent to hospital. On examination the findings in both cases were very similar: elevation of temperature to 99° F., upper abdominal tenderness with slight rigidity, and a history in both cases in favour of a diagnosis of acute pancreatitis. In one case an indefinite lump was palpable, lying transversely across the epigastrium, and this lump gradually disappeared whilst the case was under observation for the ensuing three weeks. This case gave a positive Loewi's test and showed a urinary diastatic index of 80. The other case had no lump in the epigastrium and gave a negative Loewi's test, but there was a definite glycosuria and the urinary diastatic index was 100. Both cases got perfectly well with conservative treatment and the diastatic indices had fallen to normal within four days.

There has lately been a school of surgery advocating conservative treatment for acute pancreatitis,

and if the diagnosis of the above cases is accepted, then their successful end-result would seem to support this form of treatment. There is no absolute proof of the diagnosis, however, and so we cannot draw any definite conclusions. Moreover, if these cases *were* true instances of acute pancreatitis they belonged to the more subacute variety of that condition, and it seems to me that the conservative line of treatment must break down when one is faced with a fulminating case, for the simple reason that one can never be sufficiently certain of the diagnosis to eliminate a perforated peptic ulcer, and one is therefore bound to perform a laparotomy.

SUMMARY

1. A series of 122 cases of acute abdominal emergencies is reviewed.

2. Associated with this series were 14 cases which closely simulated the "acute abdomen"; these cases are also reviewed.

3. Sixty-two cases of acute appendicitis are further analysed, and the condition is discussed.

4. Twenty-five cases of acute intestinal obstruction are further analysed and the condition is discussed with special reference to its high mortality.

5. Some of the other acute abdominal emergencies are briefly discussed.

An Old Lease

A communication from Professor F. G. Parsons, F.R.S., F.R.C.S.

ON looking over a number of old leases belonging to St. Thomas's Hospital I came across the accompanying one to Peter Nicholson, dated 3 and 4, Philip and Mary. Since I notice that all the leases of this reign have two consecutive years in their date, I presume that this refers to the fourth year of Mary's reign and to the third of Philip's—that is, to 1557.

I think that this Peter must have been the son of the famous Peter Nicholson who made some of the beautiful stained-glass windows for King's College Chapel at Cambridge in 1526, for we know that the work was done in the precincts of St. Thomas's Hospital. We know, too, that he printed here the first complete English Bible, translated by Miles Coverdale in 1535-36, a Bible now so rare that were another Nicholson Coverdale to come to light its value would be almost incredible. He also printed Luther's Exposition of the 22nd Psalm, Osiander's Sermon, edited by Coverdale, and Tyndale's Justification by Faith Only.

Now all this was done in the old monastic hospital before it was surrendered to Henry VIII in 1540, but during the time in which it was suppressed we have evidence that a Peter Nicholson was still at work there in partnership with Godfrey Trice as glaziers; and now in 1557 appears this renewal of his lease, which I think we may safely assume applies to the premises in which the historic work was done. Perhaps I may come across the original lease, for I have several hundreds to look through.

To Guy's Hospital it may be of interest, since it now owns the site upon which the work was carried out, and that is why I venture to send this article to its *Gazette*. To us at St. Thomas's the renewal of leases of this period are of great interest, because they show that the new hospital took up and carried on the responsibilities of the old, and thus they form a conclusive answer to those who suggest that the Hospital of St. Thomas the Apostle was a new foundation in 1552, altogether distinct from that of St. Thomas the Martyr, surrendered in 1540.

The document is verbose, quaintly spelt, and probably much too long to be inserted in full; but I send it in case some of it may be interesting enough to reproduce. I also send a translation of some of it, since the Marian script needs a little practice to read. The prolixity is not greater than that of most leases of the time, and all the neighbours had to be mentioned because that was then the only means of identifying the site. Cellars, solars and gardens show that the Nicholsons had an important holding, and though the rent of £3 6*s*. 8*d*. (five marks) for the buildings may well seem small, we must remember that money had then about ten times its purchasing power now, and also that the rents mean very little unless the size of the fine is mentioned in the lease, a thing which the lessors were seldom anxious to have stated.

TRANSLATION

This Indenture Made, the xviith daie of Septembre in the thred and fourthe yeres of the reynes of phillpp and marie by the grace of god, kynge and quene of Inglande ffrance both ciciles (Sicilys) Spayne Jerusalem and Irrelande, defenders of the faithe Archduks of Austreche (Austria) dukes of myllen (Milan) Burgoyne brabante, Counties (Counts) of haspurge (Hapsburg) fflanders and Tyroll, Betwen the Maior comonaltie, and Citizens of the citie of london, governors of the

possessions revenues and goods of thosspitalls of Edward kinge of ynglad (England) y (the) VIth Christe, bredwell (Bridewell) & St. Thoms thappostle of thone ptie (of the one part) and peter Nicolsone dwelling wtin (within) the close of Sainte Thomas aforesaide glasyer one thother ptie, Witnessethe that the saide Maiore Citizens & comonalltie, the daie of the makyng herof, of one assent & consent have graunted dymysed (demised) betaken and to ferme lett (let to farm) and by this indentr do graunte dymyse & to ferme lett, To the saide peter Nicollson all that theyre mesuag (messuage) or tenemet (tenement) belonging to the said hosspitall of St. Thoms, late in the tenure of godphraie (Godfrey) trice glassiere and now in thoccupacion of the said peter Nicollson and sartayne other houses & romes to the saide messuage adjoyninge, late in thoccupacion of the said hosspitall of St. Thomas called the Wheavers' house wt (with) all shopps Sellers (cellars) & sollers (solars—upstair rooms) to the saide messuage or tenet & other the pmysses (premises) belonging or apptayninge (appertaining), &c., &c.

This may enable readers to translate the rest of the deed.

A facsimile of the above lease will be found on pages 194-195.

The Nature and Value of Intelligence Tests

A Paper read before the Guy's Hospital Psychological Society on 17th March, 1936, by Miss K. Duguid, Psychometric Assistant, the Department of Psychological Medicine

MR. CHAIRMAN and GENTLEMEN,—Many theories have been advanced on the nature of intelligence. However, this evening we are concerned with the testing or measurement of intelligence rather than with its nature. I therefore propose to shelter behind Thorndike's definition that "Intelligence is the thing that psychologists test when they test intelligence," and confine myself to the nature and value of intelligence tests.

The idea of testing or measuring abilities, general knowledge and achievement is not new; examinations in some form or other have existed through the ages, but Ebbinghaus in 1879 was one of the first to try to give some quantitive assessment of a given aptitude in his study of "Learning and Forgetting." Later, in 1897, he evolved a series of tests of intelligence. These were of the "completion" type, later to be developed by Healy in picture form, and consisted in a series of sentences containing gaps to be filled in by the subject. In 1894 Cattell and Farrand gave a series of tests to students at Columbia University, designed to measure reaction time, free and controlled associations, and other simple mental and physical functions. Various types of tests were evolved, especially in America, for measuring sensori-motor and associative functions, notably those of Kirkpatrick in 1900. Kelly in 1903 and Norsworthy in 1906 devised tests to detect mental defect and compared the results of their tests with the child's scholastic achievement. They were able to indicate that feeble-mindedness was not a "species" apart, but merged imperceptibly with the normal, *i.e.*, the higher grades of feeble-mindedness were equal to the lower grades of normal intelligence.

It was in 1904 that Binet first started the work which was to result in the publication, in collaboration with Simon, of his scale of intelligence tests. In spite of the fact that the number of tests of intelligence invented since then is legion, and that the majority of them claim that at last *the* test for measuring innate intelligence has arrived, it is still to Binet, with all his minor imperfections, that we turn for reliability. It would therefore seem profitable to examine his work in some detail. In 1904 he was called by the Minister of Public Instruction in Paris to become a member of a commission on special classes in schools. The immediate problem for investigation was the differentiation between the backward or feeble-minded child and the indifferent or lazy child. With this end in view he set to work with Simon to prepare a scale of tests for the detection and measurement of mental defect, and in 1905 this series of tests was published. This consisted in the comparison of lines, the repetition of digits, the comprehension of questions, etc. This scale was not standardised. By 1908 experience had shown that some of the tests had been misplaced in the scale, some were too easy and some were too difficult, so Binet revised his scale, this time introducing the method of arranging the tests in age levels from three to twelve years. These age levels were experimentally determined, the criteria for judging being the successful performance by the average child of any given test. A test was considered suitable for any given age level if passed by 75 per cent. of children of that chronological age. The child's mental age was the level which he attained on this scale. In 1910 this scale was translated and adapted for American use by Goddard, and in 1911, the year of his

FACSIMILE OF THE OLD LEASE

death, Binet published his second revision. It was Stern in 1911 who suggested the method of interpreting the mental age in terms of an Intelligence Quotient (this is obtained by dividing the mental age by the chronological age). He felt that the absolute retardation, as obtained by deducting the mental age from the chronological age, was of less importance than the relative retardation or advancement. This method was adopted and is still used. Terman, in America, published the Stanford revision of the Binet scale in 1916. This contained several alterations in the original scales and some additional tests, bringing the range up to 18 years, or the superior adult level, 16 years being taken as the average adult level. The tests were arranged in batteries of tests at each age level, each test being worth a certain number of months ranging from two to nine months. Burt, in London, has been working on a revision for London children since 1921, but this has not been published. It has been tried out in an unpublished form for several years, and will probably be published shortly.

In 1911, Healy and Fernald published a set of performance or non-verbal tests. These, in conjunction with those of Seguin and Witmer, were chiefly of the form board type, consisting of geometrical shapes to be fitted into their appropriate places, and Healy later published his picture completion tests. These latter came into the Pintner Patterson series published in 1917, which were standardised into a mental age scale. The Merrill-Palmer tests for pre-school children were started in 1922 under Dr. Helen Woolley, and during the last ten years Gesell has been working on a series of tests for infants and pre-school children. *Group tests, i.e.*, tests which can be applied to any number of people simultaneously began to appear about this time, 1917, notably the American Army Alpha and Beta tests; the Alpha tests designed for literate, English-speaking subjects, and the Beta, a series of non-verbal tests for illiterate and non-English speaking subjects. From this time on group tests have been devised to test educational achievements, and as a means of classification (Otis and the National Institute of Industrial Psychology Form 33).

THE NATURE OF INTELLIGENCE TESTS

Intelligence tests fall into various types, *i.e.*, verbal and non-verbal, group and individual, tests of development and tests of aptitude.

Verbal tests such as the Binet scale are dependent upon the comprehension of verbal instructions and upon the subject's ability to express himself verbally. Such tests comprise the comprehension of questions such as "What do you do when you are sleepy?" adequately understood and answered by the average child of four, to "Why should we judge a person more by his actions than by his words?" at ten years. The vocabulary test figures at various age levels on the Binet scale; the average child of eight is required to define 10 and the superior adult 38 words out of 50, the words becoming increasingly difficult. Similarly immediate auditory memory is tested by the repetition of digits both forwards and backwards, ranging from three digits forwards at three years and three backwards at seven years, to eight digits forwards and seven backwards at the superior adult level. I would like to point out that these tests are by no means infallible, even though the Binet scale appears to be the most reliable series of tests we have. Apart from any other considerations, there are certain difficulties, inherent in the tests themselves, and it would therefore be unwise to attach too much importance to the results of any given test. For instance, in the repetition of digits test, although it undoubtedly tests immediate auditory memory, failure need not necessarily imply a poor auditory memory, but may be dependent upon other factors, such as lack of self-confidence or failure at arithmetic at school. Furthermore, the Binet tests are considered somewhat unreliable at the higher end, partly because they do not discriminate between high and very high intelligence in older children (the tests do not go high enough to test really high intelligence above the chronological age of nine or ten years, and no adult can obtain an Intelligence Quotient of more than 125), partly because the individual tests score higher at these levels and therefore any slight slip becomes more important, and partly because the tests are less varied at the higher levels, being almost entirely vocabulary and memory tests.

Other factors than these, however, were responsible for the invention of non-verbal tests of intelligence, and Healy in 1911 set to work to meet a growing demand for such tests, *i.e.*, performance tests. The reason for this was that many children were handicapped in tests of verbal ability by deafness, word-deafness, speech or language difficulties, etc., which made it impossible to measure their innate endowments, and so a means of measuring intelligence, not dependent upon the comprehension of verbally presented material, was devised and found expression in a number of practical or performance tests. There are far too many of these to describe them all, so I will confine myself to a brief description of the tests most widely used in child and vocational guidance. We use these performance tests on all children

who come to us, regardless of any known difficulty which would tend to handicap them on the verbal tests, partly to gain as comprehensive a picture as possible regarding the child's verbal and practical abilities, and partly as a means of making a good contact with the child. The performance tests, being in the nature of puzzles, make the test situation less of an ordeal than it might become if only the verbal type of tests was used. They can be divided roughly into four groups: tests of manual dexterity and speed, tests of concentration and memory, tests of reasoning ability and observation of detail and tests of constructive ability, including the appreciation of form. The Healy Picture Completion tests, consisting of a picture with a series of missing pieces, together with a large number of insets (roughly 50 for 10 holes) from which to choose the most appropriate to complete the picture, are good tests of reasoning and observation of detail. Constructive ability and appreciation of form are measured by the Kohs Block Design test, which consists of a series of patterns to be copied with coloured bricks, varying from a very simple four-block design to a complicated design of 16 blocks. A test of speed and manual dexterity is the Seguin form-board, consisting of geometric shapes to be fitted into their appropriate holes as quickly as possible. The Merrill-Palmer scale for pre-school children is almost entirely of the performance type, consisting of pegs to fit into holes, buttons to do up, simple jig-saw puzzles of two, three and four pieces, etc. These tests have all been carefully standardised as tests of development and are individual tests, *i.e.*, they can only be administered to one person at a time. Taken separately, they are of relatively little value, since accident and specific abilities and disabilities play a greater part than they do in tests such as the Binet, but if at least five are given to each subject and the median mental age taken as a basis for working out the intelligence quotient, then they may be considered to be fairly reliable. Kohs' is probably the most reliable individual test in this series, and, in addition, affords many opportunities for the observation of methods of work, the ability to face difficulties, etc. You may wonder why it is possible to observe these things from the way in which a person sets out to copy patterns with coloured bricks, but I have used the test on several adults whom I know well and they all reacted to the test as they do to ordinary everyday problems.

Tests of development should show a steady increase from year to year with comparatively little variation within the group, whereas tests of aptitude tend to show a rather smaller increase from year to year, but a considerable variation within the group. While the tests used in child guidance clinics tend to be tests of development (apart from special tests used for vocational guidance) a certain number show specific ability or disability as well as general development. For instance, Kohs' is primarily a test of development, but it also shows specific ability or disability as distinct from the general level of intelligence. Subjects who do unusually badly, having a specific disability for this type of material, can usually be detected without the aid of other tests; for although the actual results would indicate a low level of intelligence, the methods used to obtain those results will be consistent with a higher level of intelligence. But those who have a specific ability in this type of material will give a misleading impression, for there will be nothing to show from that particular test that the general level of intelligence would be lower. For this reason it is advisable to use as many different tests as possible on each subject, consistent with the time at one's disposal. A good all-round estimate can be obtained in about two hours using the Binet tests, together with a series of about five selected performance tests. Other tests of aptitude include vocational guidance tests of mechanical ability, clerical ability, tests of manual dexterity, etc.

We now come to group tests which are usually verbal in nature but rarely require any writing, *i.e.*, they are prepared in such a way that the subject has only to draw a line under a special word or make a cross in a special place. An example of this is the National Institute of Industrial Psychology's Form 33. To this category belong also the clerical tests of the same Institute. The advantage of group tests lies in the ability to test any number of people at once and so save time. But there are disadvantages which appear to outweigh the advantages, for, although one may gain a general impression of the intelligence of a group of people, one can gain no impression of their temperamental make-up or personalities, a fact which is of the utmost importance for the individual's adjustment to the community. Nevertheless, much time can be gained and relatively little of importance lost by, for example, administering a group test to a large group of people, thereafter selecting certain doubtful cases for further examination with individual tests.

APPLICATION OF INTELLIGENCE TESTS TO CHILD GUIDANCE

So much for the nature of intelligence tests. We now have to consider their value and more particularly I should like to consider their value in relation to child guidance and vocational guidance. In other words, why are there psychologists

in the Department of Psychological Medicine here? You may think that these tests make very nice toys and provide a pleasant means of whiling away the hours which are spent daily on the benches at Guy's. If so, then why not employ a whole army of psychologists and institute testing throughout the Hospital? In any case, firstly, why is it necessary to employ a psychologist to give these tests, which surely can be administered by anyone after a short period of instruction, and, secondly, what difference can it make to Jimmy's stealing or Tommy's truanting or Mary's dermatitis artefacta to know their respective levels of intelligence?

In the first place it is true that the actual administration of the tests can be learned in a short time, as it is merely a question of learning certain specific instructions; but the intelligence quotient as an isolated factor, with no estimate as to its reliability in any given case, is of little value in the study of a problem child. The psychologist is expected to make observations on the personality of the child, the way in which he tackles a new situation, how he faces difficulties, what is his emotional response to a given situation, how much the results are affected by emotional disturbances, etc., so that the child's intellectual endowment is only one of many factors that go to make up the whole picture. It would be possible for the psychiatrist to undertake testing, although for many reasons this is not found to be practicable. For one thing it takes time, and for another, in many cases, this contact with the child in the test situation might queer his pitch, as it were, for his future treatment of the child. Just as a doctor usually finds it more satisfactory to get his prescriptions made up by a chemist, so does the psychiatrist find it more satisfactory to have the child's intelligence tested by a psychologist. Furthermore, testing is not the only work which is required of a psychologist—he has to undertake special coaching in cases of specific disabilities in reading or arithmetic, and in some cases to supervise the running of a play-room for a group of children.

With regard to the relation between the child's intelligence and his symptoms, there is, in many cases, a direct connection. Hence one finds a defective or dull and backward child, who has not been recognised as such, and is reacting to a situation either at home or at school where too much is expected of him. Generally placement in a suitable class, or special school if the child is defective, may solve the problem. For instance, I remember the case of a small boy who was referred to us because he was always falling asleep. There was no organic basis for this symptom, and investigation revealed the fact that he usually went to sleep in school. When questioned, Charlie said without any hesitation that it was always during the hard lessons that he went to sleep. He was found to be backward in arithmetic. He attended for special coaching for some time and the symptom cleared up. At the other end of the scale one may fine a very intelligent child giving trouble because the lessons are not sufficiently hard to keep him interested, much less out of mischief, and that child, if he is of an adventurous nature, may take to truanting. While as a rule our findings correlate fairly highly with the school's estimate of achievement, a relatively high proportion of defective children manage to elude detection (we see some 15 or 20 a year, many of them over school age), and a fair number of intelligent children pass unnoticed.

We now pass on to the question of specific abilities and disabilities. We have known cases of children of normal intelligence but with a specific disability in reading, who have passed several years, if not all their school life, in a special school for defectives. Intelligence tests have, therefore, discovered what the school had failed to notice. These cases of reading disability, in some cases word-blindness, can therefore receive special coaching in reading at the clinic which will enable them to attend an ordinary school among children of their own age and intelligence. Cases of children who are dull and backward and who therefore go through school at the bottom of the class, may have a specific practical ability, which will be of the utmost help to them when they leave school and have to find suitable employment. For instance, a boy was referred to us for stealing, who had never done well at school, and his intelligence quotient on the Binet scale showed him to be only just above the border-line of mental defect. However, on the practical tests he was of superior intelligence. He was encouraged to make use of this special aptitude in the choice of employment and made a good adjustment.

The test situation is found to be a very useful means for observing the behaviour and methods of work of these children in relation to an unchanging situation. The psychologist thus has the opportunity of observing the reactions of countless individuals to one stable environment, *i.e.*, the tests, and therefore is able to record deviations from the normal to this objective situation.

Lastly we come to the problem of vocational guidance in which tests of intelligence can undoubtedly play a very important rôle. It is often possible to save considerable time in the choice of suitable employment and also in the employer's

choice of suitable employees. The work of the National Institute of Industrial Psychology on vocational guidance has shown that the percentage of people retaining jobs is considerably higher in those who obtained work in accordance with vocational advice than in a control group who were not advised, or in a series obtained from statistics provided by the Labour Exchange. Although we are not able to deal from the hospital with the practical problem of finding work for boys and girls leaving school and it is of little use being told that you would make a good plumber if there are no available jobs in that line, we are able to do a certain amount by co-operating with the Labour Exchanges. We send a report of our findings with recommendations of the type of work most suited to the individual and the Exchanges do what they can to find work in accordance with our recommendations. One case comes to my mind of a boy of 15, a lift-boy, who was sacked because he was never in the lift when wanted. On examination he was found to be of very superior intelligence. The reason he was never in the lift was that he was always upstairs trying to find out how the machinery worked. He was advised to find work more in accordance with his mental ability, and is now doing very well training as a dental mechanic.

With the lower grades of intelligence, vocational guidance is chiefly concerned with aptitude and general development, and the emphasis is, therefore, upon intellectual equipment. For instance, a defective will never be able to succeed at anything but routine work, but he will probably be more successful at that than an intelligent person; defectives make good lift-boys, because their whole attention is taken up with pressing the right button and it never occurs to them to find out how the machinery works. At the higher levels of intelligence, however, the emphasis tends to shift from aptitude and special abilities, because the really intelligent person is intellectually capable of taking up any profession; it is his attitude towards that profession which determines whether he will take up Medicine or Law or go into the Army, etc., and therefore vocational guidance becomes more complex with the higher intelligence quotients, for attitude cannot be measured in the same way that intelligence can be measured.

We feel, therefore, that the psychologist has a definite place in a child-guidance clinic, and intelligence-testing is of value in that it forms one link in the chain of evidence upon which we base our diagnosis and treatment of psychological difficulties in children and adults. It is useful to view these problems from as many angles as possible; medical, psychiatric, social, scholastic, and at worst the test situation may be regarded as yet another angle from which to obtain information about the child. At best it may even provide the clue to the source of the problem.

I hope that I have been able to give you some idea of the nature of the tests we use and of the reason why we use them in a child-guidance clinic; at lease you will have some idea of what goes on in the psychologists' rooms in the Department of Psychological Medicine, and I hope that for those of you who have been, or are about to go, through that Department, reports containing apparently meaningless information about Kohs 11 yrs. 9 mths., Healy 2 9 yrs., I.Q. 87, will hold no mysteries for you.

Correspondence

A Hitherto Undescribed Cause of Marital Discord

To the Editor of the GAZETTE

SIR,—It seems to me that psychology has been receiving too much attention in your columns lately. There was none of this in my day, and we got on tolerably well without these German-American notions. There is a danger of your readers forgetting that it is physiology that has made British medicine great. And what is psychology but a stopgap until physiological neurology has filled in the lacunæ in our knowledge of man as an individual? Why should we neglect the great possibilities of the work of Pavlov and forget that all problems of our daily life may as yet be explained on sound physiological principles?

As a beginning I venture to offer a hypothesis, nay, an observation, of a purely physiological order in a field which the psychologists arrogantly claim as their exclusive domain. I refer to the field of domestic relations, and I offer the hypothesis more particularly as a contribution to the eternal problem of the dissatisfied wife and/or the irritable husband.

It is surely a common observation, although I am not aware that anyone has called attention to the fact, that people differ considerably in their sleep rhythms. Some sleep best before midnight, and some prefer, apparently from constitutional causes, to sleep late in the morning. Let us call the first type A and the second type B. Let us suppose that a woman of type A marries a man

of type B. The wife will want to be asleep at 10 p.m., but will awake fresh at 6, whereas the husband will want to read probably beyond midnight and will only be annoyed by a partner who is lively and restless when he should be having his most refreshing period of sleep. *Mutatis mutandis*, if a man of type A marries a woman of type B there will be equal difficulty. The consequences in either case can readily be imagined.

Is this, Sir, not a simpler and, therefore, a more scientific hypothesis than any that the psychologists are likely to offer?

I hope that this simple but far-reaching observation may stimulate research along similar lines with regard to the other body rhythms, and may give the Eugenics Society such conclusive data as will enable them to include a question on physiological rhythms in their forms of certificate of fitness for marriage. I can even envisage a time when people will be typed in this way as we to-day type them in blood groups, so that many a metaphorically speaking anaphylactic marital reaction will be avoided—on sound physiological principles.

Yours, etc.,

"PHYSIOLOGY FIRST."

Redecorating the Smoking Room

To the Editor of the GAZETTE

SIR,—As soon as the College Reading-Room emerges from its present state of confusion, and even perhaps before the clamour and dissent regarding the new pictures have in some degree abated, we propose to redecorate the Smoking-Room downstairs. As you intimated in your last number, I had, with your co-operation, thought of starting a competition open to members of the Students' Club for a mural design to decorate the wall behind the bar, and in this connection Mr. Slesinger has very kindly offered a prize of five pounds for the best design submitted. As it is impossible to judge at this stage how many competitors—or how few—are likely to enter, it is necessary to include the proviso that if no design deemed suitable for reproduction be submitted, the prize will not be awarded. Mr. Slesinger, the Dean, Mr. Mollison and the Secretary of the Students' Club have consented to act as judges, and their decision will be final.

I feel that there must be plenty of artistic talent amongst the members of the Club, and I hope that there will be a large selection of designs from which to choose.

The reproduction on the wall itself will be carried out by a professional, and all that is necessary is a sample in miniature of a convenient size.

The designs may be forwarded to me at the address below before July 1st.

Yours, etc.,

H. J. B. ATKINS,
Hon. Sec., Students' Club.

22, Merrick Square,
S.E.1.

Decorating the "Spit"

To the Editor of the GAZETTE

SIR,—I was interested in your suggestions for the decorating of the "Spit." Might I suggest that a few of the resident artists should be let loose there after the forthcoming Residents' Dinner.

Their work would, of course, be carried on under the æsthetic eye of the sub-committee which has chosen the new pictures for the Reading Room. We feel sure that their obviously cultivated good taste would prevent the neo-lavatorial from becoming merely lavatorial.

Yours, etc.,

"PHILISTINE."

Guy's Hospital Dental Society—Annual Dinner

THE 37th Annual Dinner of the Guy's Hospital Dental Society was held at Grosvenor House, Park Lane, on Saturday, 7th March. The President of the Society, Mr. Kenneth Hooper, was in the Chair and 433 members and guests were present. Among the latter were:—S. D. Venning, Esq.; W. G. Senior, Esq.; Professor T. B. Johnston; H. L. Eason, Esq.; H. Stobie, Esq.; H. H. Rew, Esq.; The Rev. E. Hodges; H. Chapman, Esq.; T. W. Widdowson, Esq.; Col. J. V. M. Byrne; Wing-Com. H. Somerville-Woodiwis; C. Howkins, Esq.; Surgeon-Capt. E. E. Fletcher; E. Sprawson, Esq.; J. Dudley Buxton, Esq.; H. St. John Rumsey, Esq. Unfortunately, owing to some last-minute cancellations, the number fell short of the record by only one person.

After the Royal Toasts, regrettably altered this year by the death of His Majesty King George the Fifth, for so long Guy's Patron, had been

honoured, the President rose to propose the Toast of Guy's Hospital and Schools. In his speech Mr. Hooper gave a brief and interesting history of the Hospital, its Founder Thomas Guy, and of the Schools. He also emphasised his appreciation of Lord Nuffield's generosity, through which it had been possible to erect a new paying block in the precincts of the Hospital. The President also remarked that the opening of the block was one of the last public acts of our King as Prince of Wales. The Superintendent, Mr. H. L. Eason, responded on behalf of the Hospital and Professor T. B. Johnston, the Dean, on behalf of the Schools.

Entertainment in the form of a cabaret was due to begin at this point, but as all the artists had not arrived the speeches were continued. Mr. M. A. Rushton was called upon to propose the toast of the Visitors, to which Mr. H. H. Rew, well known to all present as the Secretary of the Examining Board, replied.

The cabaret then followed, but failed to come up to expectations; certain of the artists made it apparent that the experiment could not be repeated on the same lines in future years.

The toast of the President was then proposed by Mr. F. S. Warner and responded to by Mr. Hooper, who subsequently proposed the toast of the Hon. Secretary and the Committee. He warmly congratulated the Secretary, Mr. D. W. Harvey, on the efficiency with which he had undertaken his duties throughout the year, and in particular the organisation of the Dinner itself. The Secretary replied thanking the President for the help and support he had given and the interest which he had shown in the Society during the season.

The company dispersed slowly in the region of midnight.

Entry of Students, Summer Term, 1936

Medical

Name.	*School or College.*	*Year.*
Leeming, J. A. L.	Cheltenham and Trinity College, Oxford	4th Year.
Leeming, R. A.	Mill Hill and Pembroke College, Cambridge	3rd Year.
Mindham, W. F.	University of Sheffield	4th Year.
Swift, P. N.	Malvern	1st M.B.
Stanley, R. J.	Berkhampsted	2nd Year.
Thomas, J. M.	Machynlleth County	1st M.B.
Whitworth, A. D.	Repton	1st M.B.
Wooldridge, T. R.	Jeppe High School, Johannesburg	1st M.B.

Dental

Name.	*School or College.*	*Year.*
Bacon, K. S.	Alleyn's	1st Year.
Höhn, E. O.	Secondary School, Slough	1st B.D.S.
Harvey, E.	Westminster City	Pre-Medical.
Jones, P. D.	Cardiff Technical College	1st Year.
Pearce, J. P.	Nautical School, Pangbourne	Pre-Medical.
Vorster, S. P.	Witwatersrand University	Pre-Medical.

Guy's Hospital Athletic Sports

THE Annual Athletic Sports were held at Honor Oak Park on Saturday, May 2nd, and, although the weather was sufficiently cold to deter all but the most enthusiastic, an excellent meeting resulted.

A feature of the event was the keenness displayed by the younger members of the Athletic Club, notable examples of which were given by Douglas, who won the half-mile in one second outside record time; Taylor, who gained a place in both the half-mile and mile, and Hinde, who was second to Etheridge in the three miles.

An innovation introduced this year to replace the Medical *v.* Dental Relay was an Inter-Club

Relay over one mile (8 by 220 yards), in which the following clubs took part: Rugger, Soccer, Swimming, Rowing, Hockey, Ice Hockey and Darts Clubs. Surprisingly, the Darts Club won this event by about fifteen yards from the Swimming Club, which speaks well for the effect of alcohol upon the system. The event attracted fifty-six competitors and was considered the best event of the afternoon.

E. I. Davis, a former Cambridge Athletic President, accomplished a sparkling performance by his success in both Sprints and the Long Jump, and his arrival at the Hospital will greatly strengthen the Athletic team. The Clement-Lucas Cup was won jointly by E. I. Davis and A. G. T. Brown.

The meeting was brought to a pleasant conclusion by the presentation of prizes by Mrs. Davies-Colley.

RESULTS

Three Miles.—1. A. E. J. Etheridge; 2. E. J. F. Hinde; 3. C. E. Solomon. Time, 16 mins. 37 secs.

Throwing the Hammer.—1. J. A. R. Smit; 2. C. H. Blockley; 3. A. G. T. Brown. Distance, 86 ft. 1 in.

One Mile.—1. A. E. J. Etheridge; 2. G. W. Taylor; 3. D. J. Lyon. Time, 4 mins. 46 secs.

One Mile Handicap.—1. G. W. Taylor; 2. A. E. J. Etheridge; 3. D. J. Lyon.

120 *Yards Hurdles.*—1. R. O. Yerbury; 2. L. C. Bellsham-Revell; 3. R. W. Harvey. Time, 19-4/5 secs.

Putting the Shot.—1. A. G. T. Brown; 2. C. Wilson; 3. A. L. Young. Distance, 32 ft. 11 in.

Throwing the Discus.—1. C. Wilson; 2. A. G. T. Brown; 3. A. M. McCall. Distance, 90 ft. 0½ in.

Throwing the Javelin.—1. A. L. Young; 2. A. G. T. Brown. Distance, 136 feet.

Ladies' Invitation Race (80 *yards*).—1. Nurse Newton; 2. Nurse Lazlitt; 3. Nurse Goldsmith.

Men's Invitation Race (100 *yards*).—1. W. H. Spencer; 2. H. H. Crabbe; 3. F. H. Crampton.

100 *Yards* (*Championship*).—1. E. L. Davis; 2. R. W. Harvey; 3. L. G. Morey. Time, 10-1/5 secs.

High Jump.—1. L. C. Bellsham-Revell; 2. R. O. Yerbury; 3. A. J. Smith. Height, 5 ft. 6 in.

Half-Mile.—1. D. M. Douglas; 2. A. E. J. Etheridge; 3. G. W. Taylor. Time, 2 mins. 6-3/5 secs.

100 *Yards* (*Handicap*).—1. G. O'Gorman (4 yards); 2. F. Walt (3 yards); 3. A. G. T. Brown (scratch). Time, 10-4/5 secs.

Inter-Club Relay Race.—1. Darts Club; 2. Swimming Club.

Obstacle Race.—1. L. C. Bellsham-Smith; 2. W. B. B. Southwell; 3. R. C. S. Dick.

Tug-of-War.—Dental beat Medicals by 2 pulls to nil.

Long Jump.—1. E. I. Davis; 2. M. Edwards-Davies. Distance, 20 ft. 11 in.

220 *Yards* (*Championship*).—1. E. I. Davis; 2. L. G. Morey; 3. R. W. Harvey. Time, 22-3/5 secs.

440 *Yards* (*Championship*).—1. G. O'Gorman; 2. D. M. Douglas; 3. A. G. T. Brown. Time, 54 secs.

Clement-Lucas Cup (*Highest Aggregate of Points in Championship Events*).—A. G. T. Brown and E. I. Davis (9 points each).

ATHLETICS CLUB FIXTURES

May 8th and 9th.—University of London Sports at Motspur Park.

May 15th and 16th.—Universities' Athletic Union Championships at White City.

May 18th and 20th.—United Hospitals Athletic Club Championships. (Holders, Guy's.) At Duke of York's Headquarters, Chelsea.

Guy's Hospital Gazette

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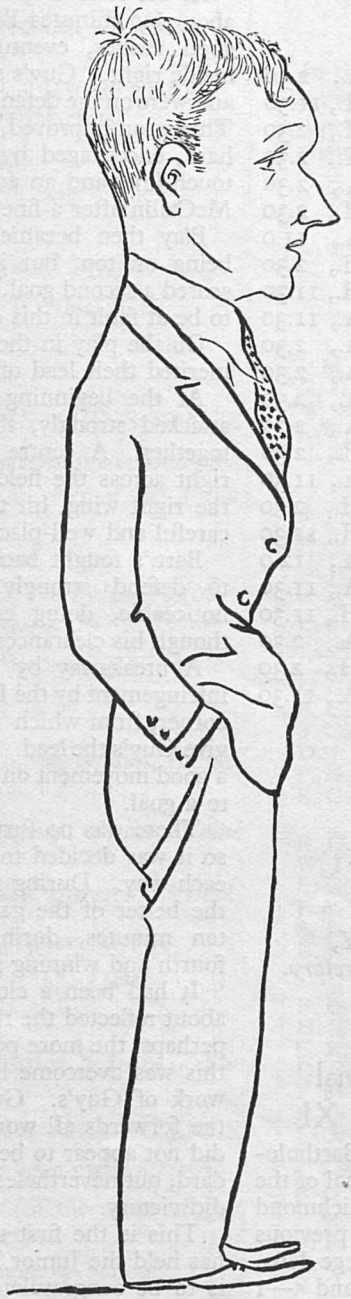
The Editor will, at all times be glad to consider articles or sketches, provided that they are accompanied by the writer's name and address, not necessarily for publication. Authors who desire reprints of their papers should make their own arrangements with the Printers when they return their proofs. All contributions to be addressed to *The Editor*, who does not accept responsibility for the views expressed by contributors.



"BO"

Sport

Cricket Club

FIXTURE LIST FOR 1936

Sat.,	May	2	Private Banks	A.,	2.30
Wed.,	„	6	Wanderers	H.,	11.30
Wed.,	„	13	Queen Mary's College	H.,	2.30
Sat.,	„	16	Norwood	H.,	2.30
Wed.,	„	20	Chelmsford	A.,	2.30
Sat.,	„	23	Norbury	H.,	2.30
Wed.,	„	27	St. Ann's	A.,	11.0
Sat.,	„	30	Catford Wanderers	H.,	2.30
Mon.,	June	1	Crofton Park	H.,	11.30
Wed.,	„	3	Cranleigh	A.,	11.30
Sat.,	„	6	Olinda	A.,	2.30
Wed.,	„	10	Catford Wanderers	A.,	2.30
Sat.,	„	13	Westcliff-on-Sea	A.,	2.30
Wed.,	„	17	Petworth Park	A.,	2.15
Sat.,	„	20	U.C.S. Old Boys	H.,	2.30
Wed.,	„	24	Pinner	A.,	11.30
Sat.,	„	27	Old Leysians	H.,	2.30
Wed.,	July	1	Stoics	H.,	11.30
Sat.,	„	4	Three Counties	A.,	12.0
Mon.,	„	6	Malden Wanderers	A.,	11.30
Wed.,	„	8	St. Bart.'s Hospital	H.,	11.30
Sat.,	„	11	Indian Gymkhana	A.,	2.30
Wed.,	„	15	Gravesend	H.,	2.30
Sat.,	„	18	Midhurst	A.,	11.30

Tour

Thurs., July	23	Guernsey Island C.C.
Fri., „	24	
Sat., „	25	New Regiment.
Mon., „	27	Victoria College, Jersey.
Tues., „	28	Jersey Island C.C.
Wed., „	29	

L. G. MOREY,
Hon. Secretary.

Hockey

Inter-Hospitals Junior Cup Final
Guy's 2nd XI v. Bart.'s 2nd XI

GUY'S Hospital 2nd XI met St. Bartholomew's Hospital 2nd XI in the Final of the Inter-Hospitals' Junior Cup at Richmond on Thursday, April 2nd. In the two previous rounds, Middlesex and University College Hospitals had been easily defeated by 6—0 and 5—1 respectively.

Throughout the whole game rain fell steadily and the pitch was in a very poor condition. In spite of this, both sides played very good hockey, well above the standard usually expected in a Junior Cup Final.

At the start Guy's attacked strongly, but after about ten minutes Bart.'s forwards made several good rushes, eventually scoring through their inside right. Guy's seemed disheartened by this, and were on the defensive for the next few minutes. They soon improved, however, and began to press hard, encouraged by vigorous support from the touch-line, and an equalising goal was scored by McCallin after a fine run.

Play then became more even, both defences being on top, but just before half-time Bart.'s scored a second goal, the Guy's defence appearing to be at fault in this case.

On the play in the first half, Bart.'s just about merited their lead of two goals to one.

At the beginning of the second half, Guy's attacked strongly, the forwards combining well together. A centre from the left wing passed right across the field, and Cox, coming in from the right wing, hit the ball into the goal with a careful and well-placed shot.

Bart.'s fought back well and Guy's backs had to defend strongly. Thorne was particularly noticeable, doing enough work for two men, though his clearances at times were a little erratic.

A breakaway by the Guy's forwards and an infringement by the Bart.'s defence led to a penalty corner, from which Thorne scored a good goal to give Guy's the lead. This was soon lost, however, a good movement on the Bart.'s right wing leading to a goal.

There was no further scoring before full-time, so it was decided to play ten minutes extra time each way. During the whole of this Guy's had the better of the game, especially in the second ten minutes, during which Wood scored the fourth and winning goal.

It had been a close game, and the score just about reflected the run of the play. Bart.'s were, perhaps, the more polished team individually, but this was overcome by the enthusiasm and teamwork of Guy's. Guy's defence was sound and the forwards all worked hard. The three halves did not appear to be quite up to their usual standard, but nevertheless played their part in a splendid victory.

This is the first season since 1924 that Guy's has held the Junior Hockey Cup, and the 2nd XI is to be congratulated on a fine finale to a very successful season, which augurs well for the future of the Hockey Club.

Team.—J. H. Smart; T. C. Thorne, O. B. Alakija; L. Quick, D. F. Freebody (Capt.), C. Smith; F. R. Buckler, S. G. McCallin, G. C. Bough, J. K. Wood, B. M. Cox.

Hospital Information, etc.

Guy's Hospital Medical School

EXAMINATION FOR THE BEANEY PRIZE IN PATHOLOGY

April, 1936

The following awards have been made :—

T. H. Shire. *Prize* £34.

R. H. S. Thompson. *Special Prize* £10.

T. B. JOHNSTON,
Dean.

SCHOLARSHIPS IN ARTS AND SCIENCE

The following awards have been made for 1936 :

War Memorial Scholarship in Arts of the Value of £200—

J. Wilkes, Tonbridge School.

Entrance Scholarship in Arts of the Value of £100—

Divided between—

L. P. R. Fourman, Lycée Française de Londres, South Kensington ;

and

M. P. Lam, University College School, Hampstead.

Entrance Scholarship in Science of the Value of £100—

P. W. Hopper, Archbishop Holgate's School, York.

T. B. JOHNSTON,
Dean.

Guy's Hospital Dental School

SCHOLARSHIPS IN ARTS AND SCIENCE

The following awards have been made for 1936 :

Entrance Scholarship in Arts (of the value of £40 per annum for four years)—

E. O. Höhn, Slough Secondary School.

War Memorial Scholarship in Science (of the value of £40 per annum for four years)—

H. A. Buck, Southend High School for Boys.

T. B. JOHNSTON,
Dean.

Errata

In the review of Mr. McDonagh's book, "The Common Cold and Influenza," for "metatasial" in line 18, page 178, read "metaplastic," and for "visitants" in line 24 read "variants."

Pass List

CONJOINT BOARD.
FINAL EXAMINATION.
April, 1936.

Medicine.

*J. M. Brown	*O. Hughes
*G. D. Channell	*L. W. Kamm
*W. W. Gilford	*G. D. N. Milne
*J. W. Clegg	*F. E. Pitt-Payne
H. R. W. Franklin	*T. A. Turnbull

Midwifery.

B. Bell	A. E. Loden
E. R. Bowes	M. Lubran
D. Graham-Brown	N. R. McEvoy
K. Chartikavanij	A. D. Milne
P. M. Davies	B. Maddison
J. W. Doupe	W. B. Parker
V. Drosso	J. Patterson
C. H. Edwards	A. C. Ricks
C. Gill-Carey	H. Stoll
E. Gillett	S. I. Williams
S. Garnjana-Goonshorn	H. A. J. Woodland
D. J. A. Alban-Jones	M. R. Woods
P. H. K. Gray	R. O. Yerbury
B. G. A. Lilwall	

Surgery.

R. G. Chapman	L. G. Lyle
W. J. Gardner	H. R. Malan
E. Gillett	*G. D. N. Milne
*J. A. T. Griffiths	R. C. Neville
S. Jackson	A. S. Woolstone
L. N. Kaplan	Z. C. Zuckerman

Pathology.

B. Bell	M. Lubran
H. W. H. Bedford	B. Maddison
E. R. Bowes	A. D. McDonald
D. Graham-Brown	H. A. McDonald
P. M. Davies	A. D. Milne
F. C. Dutton	W. B. Parker
J. D. Ebsworth	A. C. Ricks
C. H. Edwards	A. C. Shein
A. W. Gibbons	R. Y. Taylor
P. H. K. Gray	S. I. Williams
J. M. Lea	M. R. Woods
A. R. Leask	G. E. Yardley
V. B. Liberman	R. O. Yerbury
B. G. A. Lilwall	

* Have now qualified.

SOCIETY OF APOTHECARIES OF LONDON.
FINAL EXAMINATION.
April, 1936.

Surgery.

*M. A. Partridge.

Medicine.
*P. D. Lynch.

Forensic Medicine.
*P. D. Lynch.

Midwifery.
C. L. Blacklock.

* Have now completed the examination.

UNIVERSITY OF LONDON.
SECOND EXAMINATION FOR MEDICAL DEGREES.
PART II.
March, 1936.

E. B. Berry
M. E. Davies
P. Forgacs
W. F. Frazer
J. M. French
H. Greenburgh
W. E. Greenwood
W. R. L. Harrison
C. F. Hawkins
R. E. Horton
C. W. Kesson
A. H. Knight
O. G. Lane
H. A. Lee
D. R. Levinson
D. C. Lewin
H. F. Lunn
A. H. Mayne
D. E. Meredith
C. H. Phillips
T. M. L. Price
C. P. F. Quinnell
C. H. J. Rey
R. G. Robinson
J. H. Smart
D. Stafford-Clark
C. J. Stewart
G. N. J. Thomas
D. Tumarasvin
H. D. Venning
K. H. Walter
E. H. Williams
E. Williams
Hugh Wormald

SOCIETY OF APOTHECARIES OF LONDON.
PRE-MEDICAL AND PRIMARY EXAMINATIONS.
April, 1936.

Chemistry.
E. P. T. Miles.

Physics.
E. P. T. Miles.

Materia Medica and Pharmacy.
B. A. Pitt.

Anatomy.
W. E. Roden.

Physiology.
W. E. Roden
H. F. Sparling
W. N. Vellacott

UNIVERSITY OF CAMBRIDGE.
Easter Term, 1936.
SECOND EXAMINATION FOR MEDICAL AND SURGICAL DEGREES.
PART III.

Pharmacology and General Pathology.
A. L. Peers
H. Stott
J. Watson

Papers by Guy's Men

John A. Ryle. Some remote effects of syphilis. *Clin. Jour.*, 1936, lxv, 136.

W. W. Payne. Diabetes in children. *Clin. Jour.*, 1936, lxv, 162.

R. O. Barber. Pre-normal occlusion, true and apparent. *Dental Record*, 1936, lvi, 283.

L. J. Witts and Another. Treatment of the leukæmias. *Brit. Med. Jour.*, 1936, i, 762.

Robert Bradlaw. Innervation of the teeth : Abstract. *Brit. Dent. Jour.*, 1936, lx, 399.

C. P. Symonds. Prognosis in cerebral concussion and contusion. *Lancet*, 1936, i, 854.

A. Bulleid. Assessment of dental sepsis as a factor affecting medical and surgical procedures.. *Lancet*, 1936, i, 931.

G. B. Dowling. (1) Schawberg's disease ; (2) Bower's disease of the finger. *Proc. Roy. Soc. Med.*, 1936, xxix, 639 ; Sect. Dermat., 639.

W. Sampson Handley. The prevention of cancer. *Lancet*, 1936, i, 987.

N. S. Plummer. The accidents of blood transfusions. *Jour. Clin. Res.*, 1936, xxii, 43.

J. B. Blaikley. Urinary examination in pregnancy. *Jour. Clin. Res.*, 1936, xxii, 43.

Changes of Address

George Ellis, Professional address—211, Sandgate Road, Folkestone, Kent (*Folkestone* 4166) ; Private address—2*a*, Bouverie Road West, Folkestone, Kent (*Folkestone* 2615).

A. G. Ord, Freestone House, Freestone Road, Southsea, Hants. *Portsmouth* 5723.

Appointments

Ronald E. Lane, Honorary Assistant Physician, Salford Royal Hospital.

G. B. Ebbage, The Kent County Ophthalmic Hospital, Maidstone. *Maidstone* 3270.

Birth

WOODRUFF.—On March 9th, 1936, at 19, Bentinck Street, to Betty (née Whiteley), wife of Keith Woodruff, of 33, Nottingham Place, W.1—a son.

Marriage

ELLIS—WILSON.—On April 25th, 1936, at St. Mildred's, Addiscombe, George Ellis, of Folkestone, to Doris Wilson, of Addiscombe.

MIN SEIN—YIN MAY.—On March 25th, 1936, at Rangoon, Burma, Captain Min Sein, M.B. (Cal.), M.R.C.P. (Lond.), I.M.S., to Ma Yin May, M.B. (Cal.), M.R.C.P., F.R.C.S. (Edin.).

Eds. { P. W. C. / M. A. P.

GUY'S HOSPITAL GAZETTE

A Journal of Medicine, Surgery, Dentistry and Hospital News.

PUBLISHED FORTNIGHTLY.

Volume L — *23rd May* 1936 — *Number* 1248

PASSIM

THE results of elections by committees are always uncertain, and, as a rule, little money can be made, but over the election for the latest Staff appointment there can be no doubt that everyone spotted the winner. But again there was no financial gain ; everyone was anxious to bet on Mr. Brock and the prices were too short for quotation.

We very heartily congratulate Mr. Brock on his appointment, and we also congratulate the committee on securing his services permanently for the Hospital.

Mr. Brock entered from Christ's Hospital in 1921 as a scholar, and while in the dissecting room won the Harris Prize in Anatomy and the Wooldridge Prize in Physiology. In the wards he won the Golding-Bird Prize in Bacteriology, the B.M.A. Prize Essay in 1926, and the Treasurer's Gold Medal both in Medicine and Surgery. In the Final London M.B. he obtained distinction both in Medicine and Surgery. He became Assistant House Surgeon to Mr. Hughes, and House Surgeon to Mr. Rowlands and Mr. Turner, and subsequently for a year in 1929-30 demonstrated Anatomy and Operative Surgery in the Medical School. In 1931 he went to America and there worked with E. Graham and Clerf, and began that study of diseases of the chest which has since earned him his reputation and the Jacksonian Prize of the Royal College of Surgeons. From 1931 until the present year he has been a Surgical Registrar, both on the operating and teaching side.

▭

WE congratulate also Dr. R. W. B. Ellis, M.D. (Cantab.), M.R.C.P., on his appointment as Assistant Physician to the Department of Children's Diseases. We extend to him a very hearty welcome, the more especially as he comes to us not as a stranger but as a member of the same family, for he is from one of that great Trinity formed by St. Thomas's, St. Bartholomew's and ourselves. With St. Thomas's we have the closest historical associations, and we hope that this is yet another sign of the closer co-operation which has come about between the three of us.

Dr. Ellis completed house appointments at St. Thomas's, during which he was house physician to Professor Maclean, and then proceeded to America, where his appointments included those of house physician to departments of midwifery and diseases of children in Boston, and a research fellowship at Harvard University. On his return, Dr. Ellis has been successively pædiatric registrar at the Westminster, the London and the Great Ormond Street hospitals, and has worked at Hamburg and Heidelberg. He is at present assistant physician to the Queen's Hospital for Children, Hackney, and physician to the Hospital for Infants, Vincent Square.

▭

WE understand that the present pernicious division of the appointment of Surgical Registrar into operating and teaching sections has been condemned, not merely by ourselves and by everyone else who has come into contact with it, but at last by the authorities. The disadvantages of the system were apparent before it was introduced, and were in every way fulfilled. The defects we have elaborated before in these columns ; there was a break in the continuity of the teaching, there was an almost complete lack of pre-operative teaching on acute surgical emergencies, the operating registrars were grossly overworked, the teaching registrars were prevented for yet another year from obtaining surgical practice, and the pleasant feature of the appointment, the *côterie*

intime of the take-in firm, was to a large extent destroyed. The reversion to the old order is very good news; our only fear is that the repeal may not be enacted until October. Could not the old system be restarted straight away?

WITH the energy induced by the coming of the spring, the sub-committee of the Clubs' Union Council to consider the improvements in the College is about to burst into activity. Any suggestions which readers may care to make on this subject will be received and patiently considered if sent to the *Gazette* Office by Tuesday, May 26th, and, if thought worthy, will be laid before the Committee. With regard to the reading-room, it was with some pleasure that we noticed that the newspaper stands, a legacy from the old Public Library in the Borough, had disappeared, but it was with great regret that we learned that they were away only to be painted. We would suggest that these should not be replaced; we have various ideas as to what might be done with them, but these are hardly fit for publication and will be forwarded personally to the Students' Club Committee on request. Instead of the stands the Smoking Room could be provided, perhaps, with wooden paper holders at a few pence each, which would prevent the literature from being disordered and destroyed. The absence of the stands would have the further advantage that the pictures could then be hung at their proper height, and, although there are those who think that they are better in their present position almost out of sight, we do not side with them.

Certain Endocrine Problems of Pregnancy and Childhood

A Lecture delivered to the Society of Medical Officers of Health at Guy's Hospital, on 16th May, 1936

by P. M. F. Bishop, Esq., B.M.Oxon.

LADIES AND GENTLEMEN,—I have chosen to discuss with you to-day certain endocrine problems of pregnancy and childhood in which work has recently been performed in this and other countries.

HABITUAL AND THREATENED ABORTION

The nidation and retention of the developing ovum during the early stages of pregnancy are dependent on the functional activity of the corpus luteum. The specific hormone secreted by this organ—progestin—is responsible for the development of the decidua of early pregnancy, which is essential for the embedding of the ovum, and also for that quiescence of the uterine muscle necessary for the retention of the developing embryo and placenta. By the end of the first third of pregnancy the placenta is fully formed, so that the fœtus now has a firm foothold on the wall of the uterus, and cannot easily be dislodged, even if the uterus should undergo spontaneous contractions. The influence of progestin is, therefore, no longer required, and by the end of the first half of pregnancy the corpus luteum has disappeared.

In cases of habitual abortion for which there is no organic cause such as syphilis, nephritis, etc., it is usually found that the abortions occur between the second and the fourth months. They may of course occur earlier than two months, though they will be difficult or impossible to detect as abortions before this time. On account of the early period at which these miscarriages occur, it is thought that they are due either to premature degeneration of the corpus luteum or to relatively deficient secretion of progestin, and for this reason the administration of corpus luteum hormone to inhibit the uterine motility has been advocated, and reports from various workers[1] on the results of such prophylaxis are now to hand and show that in about 70 per cent. of cases of habitual abortion pregnancy may be carried to term and the woman delivered of a healthy living child. The doses are purely arbitrary at the present. At the endocrine clinic at this hospital we use daily doses of one rabbit unit for two months, commencing one month before the "critical period" (the date at which the patient usually aborts) and terminating not less than one month after this date. Other workers have had good results by giving bi-weekly instead of daily injections. There are two practical disadvantages to this form of treatment: (1) that it necessitates numerous intramuscular injections to which the patient is apt to object, and (2) that the material is still very expensive. One rabbit unit costs about 8*s.* 6*d.*, so that a course of about 60 injections would cost approximately £25. The second of these objections may be overcome by giving a luteinising extract from pregnancy urine rather than the true corpus luteum hormone itself.

It is found that the gonadotropic substance which is present in pregnancy urine and which is responsible for the Aschheim-Zondek test, when injected into animals produces predominantly a luteinising effect on the ovaries, tending to convert

the membrana granulosa into luteal cells which secrete progestin. Such extracts as pregnyl (Organon), gonan (B.D.H.), prolan (Bayer's) and antuitrin-S. (Parke, Davis) are all reliable standardised preparations of pregnancy urine, and have been employed in this connection with a fair degree of success. 60 injections of 100 rat-unit strength of pregnyl would cost about £5 10s. In order to overcome the first objection one must use some substance which is active by mouth. It is found[2] that Vitamin E is apparently equally effective in preventing abortion in these cases, and can be given by mouth in the form of concentrated wheat germ oil, which is made up in capsules and put on the market in some such form as Fertilol. These capsules are relatively inexpensive. Lack of this factor in the diet leads to death of the fœtus. It has been shown recently[3] that if extracts obtained from the pituitaries of Vitamin-E-deficient rats are injected into rabbits, higher doses are required to cause ovulation in the rabbit that if the pituitary extracts were obtained from rats on a normal diet. This suggests that Vitamin E helps to maintain the normal activity of the corpus luteum during pregnancy, not by direct action on the ovary, but by stimulating the gonadotropic function of the pituitary.

With regard to the relative merits of these three forms of treatment it should be borne in mind that the essential cause of the abortion is lack of progestin, and that therefore obviously the safest form of treatment is to make up this deficiency directly by administering progestin. The disadvantages are that it must be given by injection and that it is expensive. With regard to expense, there is every hope that in the near future larger supplies of progestin will be available, for it is now being extracted from whales' corpora lutea[4] instead of the corpora lutea of sows. Administration of luteinising hormone from pregnancy urine is more risky, for it may fail to luteinise the ovary in the particular case under treatment. It is, however, cheaper than corpus luteum extract. Administration of Vitamin E is even more risky, because it is more indirect in its effect, acting on the uterus via the pituitary first of all and then the corpus luteum. It is, however, comparatively cheap and can be taken by mouth.

The same principles of treatment are, of course, available in cases of threatened abortion, many of which are probably due to over-activity of the uterine muscle. At the endocrine clinic we advise giving two rabbit units of progestin daily until such symptoms as bleeding and pain have subsided. A pregnancy test is not of much value in determining whether the abortion has become complete or not, before putting the patient to the expense and inconvenience of the treatment, for the test may still be positive as long as six weeks after death of the ovum,[5] and I have had one case in which the test became negative during a threatening abortion. The abortion was averted by treatment with progestin, and the test then became positive again.

MISSED ABORTION

For some time it was believed that, whereas progestin inhibited uterine motility, œstrin, the ovarian follicular hormone, stimulated uterine contractions. This is, in fact, the case in certain animals such as rabbits, in which œstrin will induce abortion during the early stages of pregnancy, but it has been shown not to be the case as far as the human female is concerned. In a recent investigation[6] which set out to prove or disprove this point, four groups of patients were chosen. The first group was composed of cases of pregnancy of less than 28 weeks in which therapeutic abortion was indicated. None of the 12 cases aborted as the result of œstrin treatment, though as much as 7 million units were given in one case. The second group consisted of 10 cases in which an attempt was made to induce premature labour with œstrin. In five of these cases this was apparently successful. In the third group were 12 cases of intra-uterine death, including missed abortion. In ten of these cases the uterus was evacuated by the administration of œstrin, the total dosage employed varying between 40,000 and 2½ million units. The fourth was a small group of four cases to which œstrin was given for uterine inertia. In each case the pains improved and the patient was delivered fairly shortly afterwards. From these results it would appear that œstrin can definitely improve subnormal uterine contractions (viz., uterine inertia and missed abortion), and may even increase normal contractions when the patient is within a week or two of term.

THE "PREGNANCY" DIAGNOSIS TESTS

The most important point to emphasise in connection with these tests is that they are not designed specifically to detect pregnancy, but the presence of gonadotropic hormone in the urine. Excess of this substance occurs in the urine in three conditions: (1) pregnancy, (2) the menopause, and (3) hydatidiform mole, chorion-epithelioma and testicular tumours in the male. Pregnancy is the condition for the diagnosis of which these tests are most commonly performed, and the original Aschheim-Zondek test and its

most reliable modification, the Friedman test, give, in skilled hands, a 98.5 per cent. accuracy. The Aschheim-Zondek test consists in the subcutaneous injection of five immature female mice with a total quantity of 2.4 c.cm. of urine, and the inspection of the ovaries for the presence of fresh corpora lutea or blood spots after an interval of 100 hours.[7]

The Friedman test is performed by a number of different methods, but one designed to eliminate the test animal as a source of error is as follows :[8] The ovaries of an adult doe rabbit are inspected by laparotomy, and a note made of their appearance. 10 c.cm. of the urine for diagnosis are injected intravenously. After a minimal interval of 36 hours the ovaries are again inspected by operation. If corpora hæmorrhagica and/or fresh corpora lutea are present, the result is positive. If the appearance of the ovaries has not changed from that found at the preliminary laparotomy, urine of pregnancy is injected, and again after a minimal interval of 36 hours the abdomen is opened. The ovaries should now show positive changes. If they do not, then the particular animal used will not react to urine of pregnancy, and is discarded, the test being repeated on another rabbit.

At the time of the menopause, owing to the declining function of the ovaries, there is a complementary increase of activity of the anterior lobe of the pituitary, and a gonadotropic hormone which stimulates follicle ripening is excreted in excess in the urine. This urine, if injected into test animals, will cause enlargement of the Graafian follicles, but will never lead to the formation of fresh corpora lutea or blood spots. This serves to distinguish the " pregnancy " reaction from the " menopause " reaction. The factor excreted in the urine during pregnancy is undoubtedly derived mainly, if not entirely, from the placental chorion. Hydatidiform mole is a condition associated with pathological proliferation of the chorionic villi, and, owing to their increased activity in this condition, the luteinising hormone is excreted in the urine in very high concentration as compared with the quantity excreted in normal pregnancy. The same argument applies to chorion-epithelioma, so that a quantitative estimation of the urinary hormone will distinguish between normal pregnancy and hydatidiform mole or chorion-epithelioma. This is particularly valuable in the latter condition, for chorion-epithelioma of the uterus may be entirely intra-mural, and therefore incapable of diagnosis by curettage, or again, even after hysterectomy, recurrences may appear, which can be accurately diagnosed only by the " pregnancy " test.

Finally, tumours of the testis vary in their malignancy according to how embryologically primitive is the type of cell of which they consist. The most malignant contain chorion-epitheliomatous tissue and consequently give a strong pregnancy reaction with the formation of corpora lutea. The more innocent contain less primitive tissue and therefore give only a follicular reaction similar to menopause urine, or actually a negative test. The " pregnancy " diagnosis tests therefore assist in both the classification and prognosis of testicular tumours.

With regard to the diagnosis of threatened complete or missed abortion, I have already pointed out that the pregnancy test is of very little value.

VULVO-VAGINITIS OF INFANTS

There is a report of a small series of cases of gonococcal vulvo-vaginitis treated with œstrin.[9] If the œstrous cycle of rats or mice is studied by examining smears taken from the vagina, it is found that the height of œstrus is associated with a proliferation of the vaginal epithelium and an increase in the number of layers of its cells.[10] The rationale of the treatment of vulvo-vaginitis, therefore, is so to increase the thickness of the vaginal epithelium that the originally affected layers may be brought to the surface, deprived of their blood supply and nutrition, lose their nuclei, and finally shed. The dosage advocated was 1,000 to 2,000 units of œstrin daily by injection, or 4,000 units daily by mouth. The treatment was accompanied by periodic douching to remove the discharge. The authors were favourably impressed with the results obtained and with the rapidity with which the discharge cleared up. This treatment is, however, still *sub judice*, and I have no personal experience of it on which to formulate an opinion.

UNDESCENDED TESTES

Spence and Scowen[11] have recently reported favorable results from the treatment of undescended testes with pregnancy urine extracts. These are given by intramuscular injection in 100-500 rat-unit doses two or three times weekly. At the endocrine clinic here we have treated a small series of cases ranging mostly between the ages of 12 and 14, and in the majority the testes have descended into the scrotum within five weeks of commencing treatment. In some pubic hair has begun to grow during the period of observation and there has been a noticeable enlargement of the penis. The injections, in our opinion, should be persisted in for some little time after the descent of the testes if they appear to be under-developed.

Denis Browne[12] has criticised the treatment on the grounds that most undeveloped testes descend unaided eventually, and that therefore endocrine therapy is an unnecessary luxury. We feel that if

the deformity is allowed to persist too long, there may be a danger of the testis becoming atrophied. McLellan[13] has pointed out that there is a group of cases in which the general bodily development and the size of the undescended testis is normal, in which the arrest may be due to some mechanical obstruction, and that in this group success should not be expected from hormone therapy. This is, of course, a pertinent observation, but the difficulty is to satisfy oneself whether a testis situated in the inguinal canal is or is not of normal development for the age of the child. There seem to us to be no serious contra-indications to endocrine therapy in these cases, and when the condition is associated with signs of general bodily under-development or of Fröhlich's disease we have on occasion noted a marked improvement in the general condition. We feel that the treatment has up to the present given sufficiently satisfactory results to make it little short of criminal to resort to the operation of orchidopexy before endocrine therapy has been given a chance.

The practical applications of endocrinology to the problems of pregnancy and childhood have been only so recently explored that critical judgment and cautious restraint should be exercised to avoid the dangers of that premature enthusiasm which is so apt to bring a newly discovered branch of medical science into disrepute.

The diagnosis of pregnancy, the prophylaxis of habitual abortion and the treatment of undescended testes are among the more promising examples of the application of endocrine principles to clinical problems, and provided the clinician does not consult the endocrinologist as a magician and dismiss him as a charlatan if he does not guarantee or attain success, they should manage to achieve a symbiosis which should be gradually progressive, usually amicable and sometimes profitable.

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Personal Issues in the Practice of Dentistry

By Robert Cutler, Esq., M.R.C.S., L.R.C.P., L.D.S.

MR. CHAIRMAN and GENTLEMEN,—Some eleven years ago a young and enthusiastic student read a paper to the Dental Society entitled "Some Aspects of Prosthetics"; the Society, being then less critical than it is now, survived it, and the incident is only noteworthy in that the speaker on that occasion was like in age and experience to the great bulk of those gathered here this evening. That speaker was myself, and I can well remember the rosy dreams of my future—quite unshared, I might add, by those who taught me—that I entertained at that time: there would be no professional honour that would be without my grasp, and Harley Street would be mine for the asking! Well, a decade has gone by since then, and the rosy dreams have proved to be like the red sky at morning, which, as you know, presages rain later in the day. I have had, as you also will have, a fair share of clouds and sunshine, and gone for ever are the dreams of days gone by; just, for instance, having regard to the type of practice I conduct, and to the number of hours I find it possible to work at the chair side, I can even assess the probable maximum limits of my professional income for the next three or four years, and I know now that it is hardly possible that I shall ever grace the Presidential Chair of any of those learned societies which are such an ornament to our profession.

In short, I have found, as you will, too, that the world is not a playground of carefree adventure, but rather an arena where success in the struggle for a reasonable living demands untiring industry and the fullest exercise of all our abilities.

Yet on the other hand, in exchange for the loss of the enchanting prospects of former days, I find I have developed a niche in a certain level of professional practice, and I know that if I behave normally and always do my best I shall continue to earn the respect, and sometimes even the gratitude, of those who entrust themselves to my care; and I can now look back on my many past

failures and few successes without rancour, without prejudice and, perhaps, with a smile, too.

Furthermore, in reviewing these past years—perhaps the most important in one's professional life—I have come to realise the large part that personal relationships with patients and colleagues play in one's destiny, and so you see the reason for the title of my paper to-night.

It is indeed a tragic fact that experience is like a book which one man only can read and understand, so difficult is it for us to profit from another's failures and successes; I will not, therefore, weary you with endless personal reminiscences other than those which might serve to illustrate my points. As an example of past disappointments, I can well remember an incident which occurred when I had just begun to find my feet in London practice, when I was telephoned to attend a consultation with a very eminent surgeon upon an even more eminent patient at a most exclusive nursing home in the West End. I arrived and found the patient to have, not—as you might have imagined—a swollen face, but an enormously swollen abdomen, but both patient and surgeon regarded my entrance with astonishment and myself with a total lack of recognition. A few seconds later a dignified white-haired gentleman was announced as Dr. Lennard Cutler, of Kensington Gate, the surgeon's secretary having made a successful last-minute attempt to rectify her error in calling me! I had no alternative but to withdraw, which I did with as much dignity as possible, though with a very heavy heart.

All sorts of similar incidents spring to mind, but if we are to consider our subject seriously we should start at the beginning, so logically the first point to consider is how and why each one of us has come to take up the profession or craft of dentistry. Some of us, perhaps, have been fortunate in having a father or relative to secure our *entrée*, whilst others, perhaps, have shown marked manual dexterity in our early years, and because engineering is under a cloud, and the opportunities for safe-opening only too often illegal, we have been shepherded by thoughtful parents into the ranks of the profession. Others have come from widely differing sources; the war-time army, for instance, has supplied men who are now distinguished colleagues, whilst I can think of past chemists, veterinary surgeons and council school masters who are all established in successful practice. There thus seems to be no distinction of class or creed to bar our way to success in after life, so we will pass over the student years to the time when, armed with a degree, the graduate seeks his fortune in the outside world; possessed of little more than a modicum of sound technical knowledge and often with little or no money, he must needs review without delay the possibilities of earning a livelihood. Firstly, the public dental service offers an opening, and here at least is a living wage, with definite hours of work, and so on, and therefore on the face of it a reasonable start for professional life. Whilst admitting the great need for such services, I can, however, sum up no great enthusiasm to this approach to private practice, as any form of institutionalised treatment tends to sterilise that intimate personal relationship that should exist between patient and practitioner, whilst the mentality and worldly circumstances of those upon whom we should work are hardly such as to encourage the execution of the highest branches of our craft.

Do not, of course, take my remarks as in any sense a disparagement of an important branch of the public service, and I should be the last to dissuade you from it if you have an urge for social work, but be that as it may, such practice can do little to help you in the attainment of that fuller life which private practice affords.

In most instances, therefore, you will start as an assistant, and you will be a fortunate man indeed if you are able to serve two assistantships with different practitioners of repute, and even if they happen to be practitioners of no repute you still stand to profit, if only by learning those things to avoid in after life. Indeed, in any event the assistant gains the most from the association, as the faults and errors he is bound to make do not fall directly upon his own head, whilst he has every opportunity to study the means whereby his principal has achieved success in practice. If, however, you are to profit to the full, you must needs develop a rather queerly assorted combination of qualities, these being a steadfast faith in your professional ideals, and in the value of the orthodox methods you have been taught, whilst at the same time you must be able to divest yourself utterly of that peculiar mental arrogance which is the unfortunate legacy of any institutionalised training. We can postulate the first point as "Faith in ideals and the value of orthodox methods correctly executed"; this you will find strongly assailed as soon as you enter practice; perhaps your principal may be a practitioner of quite mediocre professional quality who has fortuitously achieved a measure of worldly success. Such a practitioner often tends to cover his own ineptitude and lack of skill by a bluff and boisterous assumption that all methods taught at hospital are entirely useless; here you must stick to your guns and watch closely the results, both immediate and eventual, which accrue from the slipshod methods your principal practises; you will learn

much, and when you come to break away you will have added confidence in your own methods. Then there is the practitioner, usually of more than average skill, who, being heavily occupied with the daily round, has come to lose touch with the newer methods; such a practitioner has usually perfected his own technique, which *in his hands* proves immensely successful, and so he becomes mentally intolerant of later developments, of which he has never gained such a complete mastery.

This attitude may create some friction in your relations, and it will call for considerable moral courage on your part to persist in the championship of your own views.

So much for the first point. The second lies in avoiding the sin of mental arrogance, or perhaps we might more easily call it "the cultivation of the open mind." This you must have, you *must* hold yourself ready to pass a fair judgment about old-fashioned and apparently unorthodox methods such as your principal may show you. You will do well to study the results of such methods closely, and at all times be ready to throw your new-found professional dignity to the winds and adopt them without delay, for if you cannot learn new methods at this stage of your career it is unlikely that you will ever do so afterwards. Now as your association with your principal continues you will find that he will unbend, and will acquaint you from time to time with the supposed reasons for his success, and if he is strong-minded he may try to impose these personal convictions upon you, just as, in the same way, he may have tried to press you to follow his own technical methods. Here again you should keep an open mind, remembering that no two men's standards of values are ever absolutely the same; there are, of course, certain cardinal qualities you must have, or must develop, if you hope for a reasonable chance of success, such as professional integrity, a normal business head, and a sense of order and discipline in the organisation of your own habits and those of your staff—but these are impersonal qualities and so need not be considered now. The sort of advice your good-natured principal will dispense is, however, of another type, and will consist of hints as to the cultivation of such-and-such people by this or that method, and of similar suggestions for increasing your clientèle on such lines. Such advice you will regard with respect, but at the same time remember that each one of us will spontaneously repel and attract differing types of people, and that in the end *your practice and mine comes to consist of those people we attract and who are attractive to us.*

For instance, the free and easy, and a little slapdash, practitioner will secure a large and quite faithful following of similar people, the grave and serious operator will have a clientèle of sedate, quiet, and rather unexciting patients, whilst the debonair dental surgeon will be happy with a following of sweet, if rather flashy, young things; and so you, in your turn, will come to have a practice of patients who in the main reflect your own outlook on life and work.

Of course you will, quite naturally, want to have as large a practice as possible, and as the years pass and your knowledge of the world increases you will, like St. Paul, become "all things to all men," but, even so, there is a quite definite limit to the mask you can place over your own essential personality, and you will be foolish to model yourself too much upon other practitioners rather than develop your own natural resources, wherever they may lead you. For instance, some colleague of yours may have a real flair for entertaining and the social life generally, as a result of which he may have acquired an exotic following of bejewelled Society dames, but do not therefore regard him with jealousy or with contempt; he may be a more than averagely good operator, and because these self-same dames think the world of him the profession achieves honour by having him in its ranks.

You, on the other hand, may be like me, a little dull and of a serious turn of mind, and so have a following of very humdrum families and old ladies, but you have no cause for complaint, as you also are very capably upholding the dignity of your profession, and you will find out that the old ladies are often in a position of being able to reward you very adequately indeed for your services! During your assistantship, therefore, you thus find your feet; you will discover that professional integrity brings its own reward in respect and faith from patients; you find that orthodox methods correctly executed save you from gross errors, whilst on the other hand certain apparently unorthodox methods are in actual fact not so, and are worthy of instant adoption. Moreover, you will begin to sort out the types amongst those patients your principal hands over to you and find out those who are attracted to you and who are obviously happy in your care. By such means you are converted from a raw graduate of negligible commercial earning capacity into a practitioner of real value, who can embark upon practice alone, or in partnership, with a very good chance of seeing some immediate financial return for the hardships of the early years. Except in certain special instances, for the graduate to embark immediately upon

practice alone is to invite a handicap which will take all his natural ability to overcome, for he pays heavily for every professional error, and the loss of the patient is only too often the sole indication of a mistake. As regards a partnership, the practitioner who has served one or more assistantships again starts with many advantages, in that not only can he sum up the essential soundness of the man or men he will join, but he also has an approximate idea of his own potential value, and can assess with some accuracy the business possibilities that should result from his inclusion in the firm.

Partnerships, indeed, are rather like a mixture of marriage and the curate's egg, some are very good, some are good in parts, and some prove to be disasters of the first magnitude, but in any event there are certain well-defined conditions that must be fulfilled if such an association is to be, and remain, a happy one.

Firstly, professional integrity of the contracting parties, as evidenced by the continued effort of each partner to do his best for each and every patient of the "firm." Secondly, a personal bond of affection or at least of respect between the parties, by which I mean a continued forbearance of one another's little peculiarities and mannerisms, and a complete absence of petty professional jealousy. As you know, "love suffereth long and is kind," and you will need a quality rather akin to it if you hope to work together for years in the stresses and strains of the daily round.

Thirdly, that the shares, both present and future, held by the partners should be such as to correspond to the labour expended and profit made by each. Now this latter is a point of considerable relevance, as the junior partner, during his earlier years, will on the whole attract to the practice patients of rather lesser substance than those secured by his seniors, and so must reconcile himself to being the hardest-worked member of the "firm." Fourthly, there should be a reasonable comparison of skill and academic qualification, so that the possibility of invidious distinction on either count is avoided. In many ways the more I consider the subject of partnership the more true do I think is the analogy of marriage, and we can indeed get a clear idea of the advantages and disadvantages of partnerships by comparing the lot of the bachelor and the married man.

During the early years as you know the bachelor has it all his own way! He is much in demand; he has ample means to indulge his tastes, his liabilities and commitments are only what he makes them; but as soon as he reaches his forties the position changes, though outward circumstances remain the same.

His friends of early years have married and have family interests of their own, the sweet young things come to have more regard for his means than his manly virility, and he starts to find that the number of people who are vitally interested in his happiness and welfare may be very small indeed. If he is ill he has perforce to be attended by hired helpers, and he usually retires to the sterile precincts of his club to get what cheer he can from his fellow celibates.

On the other hand, during the early years the married man has a load of troubles; he has sold his independence to a female who is apparently insusceptible to logic and reason; his children catch every imaginable complaint; his liabilities seem endless and his means nil. Yet as the years pass he gains his reward; he lives again in the expanding personalities of his children. He has his family to share his triumphs and lighten his disappointments, and in illness he has help and companionship.

So in dental practice the individual practitioner has every advantage in the early years, but as time passes and grey hairs come his very independence may become a liability. Illness may disorganise rather seriously his specialised personal clientèle, and his power of maintaining a peak income will tend to diminish, with consequent loss in the value of the goodwill he has so laboriously built up. The partner, on the other hand, does better in the later years; at first, of course, he has sold his independence, and must subordinate his judgment to that of his seniors, whilst his yearly net income may be less than if he practised alone. All the time, however, he knows that illness has less power to do harm to the practice, and that, although he will grow older and have a lessened capacity for the fullest output of work, the capital value of the practice will not diminish, but may steadily increase until his retirement.

From such matters we might now consider certain aspects of simple day-to-day practice, as there are many points which may have a very personal bearing. For instance, the extent to which you should make friends of your patients; in many cases this proves unwise, not only because it may create needless difficulties in connection with your accounts, but also because you may find yourself asked to attend upon poor relations, maids, and so on, on a quite uneconomic basis, and this you cannot well refuse to do. Quite apart from such considerations you will often find it difficult to exercise a cool unbiassed judgment in deciding upon an important step in treatment should your subject be very much of a friend, as well as a patient in the formal sense of the word.

If you are young, unmarried and obviously getting on well in the world this point is even more pertinent, as you may sometimes find that the hand of friendship extended to you is a cloak for determined matrimonial attacks by well-intentioned mothers anxious to do their best for their female offspring, and I can recall more than one instance of a dental surgeon becoming involved in an imbroglio of this nature with disadvantage to all concerned.

In our relations with medical confrères the position is, of course, different, and every benefit accrues from friendly relationships, as a true and sincere understanding between doctor and dentist is always to the advantage of the patient.

In this connection we sometimes do hear of cases where a measure of animosity almost, appears to exist between dentist and doctor, and in certain cases the dentist is undoubtedly to blame. It is a truism that "a little learning is a dangerous thing," and there are some grounds for thinking that the amount of medicine taught to the average dental student encourages him in a quite unwarranted belief in his own medical knowledge, an exhibition of which can be very irritating to the doctor in charge of the case. When in consultation with doctors I always make it clear that my main task lies in the execution of the appropriate surgical conservative or mechanical procedures, and that, whilst it lies in my province to make the clinical details of any given condition fully clear, I will not presume to adjudicate upon them unless the doctor so desires.

In these days of pseudo-medical education of the lay public, the lot of the family doctor is a tiresome one, and he will not thank you if you make it more difficult by striking out on original lines of your own; conversely if he finds you are ready to play your part in an essentially subordinate specialistic capacity, he will only too gladly hand over the whole question of treatment to you, with benefit to all concerned.

So, having thus considered ourselves, our colleagues and our lay public, we might as a conclusion examine that influence which must always colour our personal relationship with patients, and that influence is money or, if we cannot permit the word, we can say "fees."

From day to day almost you will be asked what are your fees for this or that, and it is well for you, and for the credit of your profession, if you are entirely clear in your own mind as to the expression of the quality of the service you give, in terms of money.

The position is in some way a little delicate, as we must remember that we are primarily technicians or craftsmen, and as such could be classed with jewellers and beauty specialists, but we are distinguished from these and all other crafts and trades in that the part on which we work is a vital unit of a living organism, any maladjustments of which may influence deleteriously the health of the possessor and sometimes even life itself.

It is for our responsibilities in this latter respect then that we are primarily paid fees, rather than for the performance of individual mechanical procedures. I thus go out of my way to make it clear to my patients either by inference or by plain statement that fees paid to me by them are primarily a return for my undertaking a full, continued and unqualified responsibility for the welfare of their mouth, be it from the standpoint of æsthetics, function or dental health, and to this extent our fees can be considered analogous to those charged by the doctor.

Such fees are, however, implemented by further charges to cover ourselves for expenditure of time and materials for purely mechanical work, such as the making of dentures, just as in the same way a doctor would state a specific charge for supplying and administering a vaccine.

I thus very rarely state a charge for any isolated step in the routine of treatment, but if a patient must needs pin me down to a cash basis, I am prepared to indicate the lowest economic rate for which I will work for each hour at the chair-side. By this means you can remain complete master of the situation from the financial standpoint, and are immune from the attacks of those patients who airily quote mythical scales of fees in the hope that you will conform to their standard rather than maintain your own. Such an attitude may on the face of it seem a little unbusinesslike to you, but I can assure you of its soundness, in so far as it brings home very forcibly to the patient the fact that you are not a purveyor of goods that can be bought and sold in the market place, but rather that you are one who has been at some pains to study their individual case, and therefore particularly suited to the future treatment and care of it.

Whilst thus talking about fees in a general way, we might spend a few moments in classifying the personal reactions of different patients to them.

Firstly, people who, after consultation, ask you point blank about fees. Such people are generally fundamentally honest and may consist of business people who are accustomed to budget on their private expenditure, and people who for want of a better term I would call "Colonials"; these comprise visitors to London from overseas, and all seem convinced that they will be overcharged if they entrust themselves to the care of a London professional man.

A simple explanation of your system of fees, followed by honest and efficient handling, soon wins their confidence, and you could not hope for a better type of patient.

Then there are the people who infer, or specifically state, that they have been victimised by a colleague in time past. Sometimes the story is true; more often it is not, the patient being a subconsciously or consciously dishonest type. In any case you should study the history and clinical condition most carefully, and form your own private opinion, in no circumstance "running down" a colleague, as in doing so you condemn the profession and, therefore, yourself; if anything, the reverse is the better policy, as it may form a means of separating the "sheep" from the "goats," the latter being those people who will deliberately invite a second opinion upon some quite normal post-operative complication, so that they can be provided with an excuse for not meeting their previous attendant's account.

Thirdly, people who never ask you about fees. These comprise old-fashioned people who have been recommended to you by old patients of yours upon whom you have attended with honesty and efficiency for some years. Such patients, together with the great mass of your regular patients, trust you implicitly, and it is the pleasure and reward of the honest dental surgeon to be told by his patient to do "just what he thinks best."

In addition to these are a group of smooth and urbane people who come to you as new patients, negligently asserting that they want to have the best regardless of cost. Such people are neither sheep nor goats, but wolves ready to prey upon the professional man's apparent defencelessness. In these cases you should instruct your secretary to make polite but firm inquiries, and a request for a banker's reference usually results in the disappearance of the would-be patient, with benefit to all concerned.

Fourthly, people who complain about fees charged. These comprise those who have genuinely mistaken the economic level at which you work, but also those who, in complaining, tacitly infer or specifically state that you have committed some error in treatment, this being made a ground for some reduction in the amount of the account.

Handle such people firmly; do not tolerate any such proposed reduction, as in doing so you would imply some degree of truth in the allegations made, and furthermore, if any definite accusation of malpractice is made, you should put the whole matter in the hands of your Protection Society without delay.

Fifthly are the people who do *not* pay. These comprise those of no substance at all, who flit from hotel to hotel and flat to flat, to whom all of us fall a victim from time to time; and, in addition, are the people who pay only if compelled.

In my opinion we should do well by suing in the Courts more frequently than we do, and I have no scruples in taking such action within a year of the first presentation of the account.

Then, in addition, are the patients who fall on evil times after the completion of treatment and express their inability to pay. If to the best of your knowledge their story is true, it is best to accept a fraction of the amount, as a sort of "token payment," rather than suggest some small reduction which leaves the matter unsolved.

And so, on rather an undignified note of money, I come to the end of my address to you to-night. I had, of course, meant it to be on a plane of erudite philosophy, but it seems to have degenerated into a symposium of hints for the conduct of practice; as such it may prove useful to some of you, though many I know will rise to the highest ranks of the profession unaided.

In these days of international conflict and disruptive social tendencies, it is difficult to forecast the future, or to assess the influences that will come to bear on the possibilities in our profession.

I, personally, look back on ten years of mistakes for which I am sorry, but not ashamed, and I have no regrets for my choice of a career, so I can only hope that the future holds as much—or, indeed, much more—for you.

Correspondence

"Portrait of Thomas Guy"

To the Editor of the GAZETTE

SIR,—I have only just seen the *Gazette* of April 11th, and am wondering if the enclosed might be of use or interest for you to publish. The engraving of your correspondent "H. L. E." may also have the note I am sending you—in which case it is not additional information. I have often wondered who wrote these frank remarks; is there anyone who would know?

Yours, etc.,

W. GRANT OLIVER.

"Southfield,"
Stoke Fleming,
Dartmouth,
S. Devon.

With reference to " A New Portrait of Thomas Guy " in the *Gazette* of April 11th, I too possess a copy of the " bad engraving " mentioned by " H. L. E." In addition to the same statement that it is " Thomas Guy, From a model in wax by his friend F. Le Pipre," there is subjoined in what might be 18th century script this brief biography :—

" Thomas Guy, founder of Guy's-Hospital, was son of Thomas Guy, lighterman and coal-dealer in Horseleydown, Southwark. He was put apprentice in 1660, to a bookseller, and set up trade with a stock of about £200. The English Bibles being at that time very badly printed, Mr. Guy engaged with others in a scheme for printing them in Holland, and importing them; but this being put a stop to, he contracted with the University of Oxford for their privilege of printing them, and carried on a great Bible-trade for many years to considerable advantage. Thus he began to accumulate money, and his gains rested in his hands: for, being a single man and very penurious, his expenses were next to nothing. His custom was to dine on his shop-counter, with no other table-cloth than an old news-paper; he was also as little nice with regard to his apparel. The bulk of his fortune, however, was acquired by purchasing seamen's tickets during Queen Anne's wars, and by South-Sea stock in the memorable year 1720. He died December 17th, 1724, in the 81st year of his age, after having dedicated to charitable purposes more money than any one private man upon record in this kingdom."

"Natural History of Disease"

To the Editor of the GAZETTE

SIR,—In your review of Professor John Ryle's " Natural History of Diseases," you terminate it by saying, " Those who are fortunate enough to acquire it should be helped to attain that broad medical philosophy towards which there is nothing to lead them in the present system of medical education."

Recently I had consecutively two Locums—one M.B., B.S.Lond. They were very entertaining and specious, but were *imbued* with what I will call " Pebs "—the Psychological Complex, Eugenics, Birth Control, Sterilisation—all derived from the god Freud. " Spirituality is a sublimation of sexuality "—we know that materialistic old tale, and the fear of facing life by the moderns. When I was at Guy's we had men of education: Sir James Goodhart, the wisest who ever stood at the bedside; Sir Frederick Taylor, austere, fair and just; Sir Cooper Perry at the Out-Patients with an occasional cynicism—perhaps a reserve to veil a certain nervousness; Dr. Pye-Smith, walking to Hunt's House in his prime—" no hungry generations tread thee down "; Sir James Paget was at Bart.'s—all versed in the humanities.

Look at the obituary notices in the medical journals. Were there ever such perfunctory " appreciations " by the colleagues of a life-time? Of course, there is this to be said in atonement—the reason is obvious—a defective liberal education.

If I had a son intended to enter a medical school to-day, I should see that previously he was well grounded in the classics, to correct a scientific priestliness.

RICHARD GILLBARD.

Romilly,
New Malden,
Surrey.

Reviews

Hospital Administration for Women. By EMILY MACMANUS, Matron, Guy's Hospital, London. Published by Messrs. Faber & Faber, Ltd., 24, Russell Square, London, W.C.1. Pp. 356. *Price* 15*s*.

HE is a bold man that will review a book for " women." A field ambulance commander, however, combines the rôles of superintendent and matron. He is in a position to estimate the relative responsibility between the two, to feel with the one and to see with the eye of the other. That must be the excuse for the present attempt.

Miss MacManus has written an excellent book which covers the whole subject of hospital administration. She does not limit herself to the departments that are under her, though she clearly lays down which these are.

The book contains many tables, lists, and appendices which make it a valuable work of reference to anyone who must keep details close at hand. It is written from the point of view of the administration of a hospital of 600-900 beds, but it is applicable to smaller units.

In the chapter on catering we are sorry to see that Miss MacManus starts with a sentence on

special diets. This gives the impression that these are of more importance than the ordinary diets. We feel that enough stress is not put upon these in a great hospital such as Guy's. The students are given no instruction on them, the house-officers have no responsibility with regard to them, and the members of the staff take no notice of them, with the result that a distinguished layman can get the opinion of members of the medical profession that the writer's divisional commander had. He found Harley Street specialists of very little use in the treatment of the soldier, as they seemed to think their duty was done when they had examined the patient and written a prescription, whereas he would have the writer understand that, in his opinion, it was the doctor's business not merely to order a diet, but to see that it was properly issued, properly cooked, decently served and that the patient got it hot. It is fortunate for our patients, though bad for our education, that the Sisters do this work so well that even our inspections become nothing more than excuses for informal talks within the kitchens.

We regret that there are no chapters on refuse disposal and general sanitation. "Flies mean filth and local filth," and although they do not trouble us much in this country, the filth should not be there. We do not believe that it is only wardmaids who throw egg-shells and bits of bacon rind out of the window. We suppose it is hopeless to try to stop students from throwing down fag-ends, cigarette cards and cartons, and the bits of silver paper they pick off their sticks of chocolate, and yet we would that the medical profession should set a shining example to the nation on this point.

On the subject of uniforms we are glad to see that the Matron describes—and seems to advocate —"trim cotton frocks in pale colours, with detachable half-sleeves or sleeves and cuffs; turned-down collars; . . . the stiff linen collar and the cap-strings fastened under the chin are gradually disappearing" (page 109). We men who are still hidebound by a traditional uniform, cannot understand why the one group of women who have not taken advantage of the liberation in clothing of recent years is the nursing profession. We cannot see why any "dear young pillow-smoother" must still wear a silly tight little collar instead of one of the type that makes Quakeresses so good-looking. We particularly hate the actions of the nurse who snatches at her forearms to put on a useless pair of cuffs whenever a doctor comes into the ward, as though her one desire was to make herself appear more incompetent than she really is. Important as the nurses are individually, we must now pass on to their education, but we should like to add to the notes on the Quarterly Change System that the dates of change should be so arranged as to be as far away as possible from the dates of other changes, such as house-officers or students working in the wards.

We cannot understand why in the table of theoretical training a final examination is included in addition to the State Final. If it is the retention of the old examination upon which the certificate used to be given by the school, it is an injustice to the nurses who were entitled to expect that this should be eliminated when the State took on the function of granting the certificate; if it is a school test to see who is fit to go in for the Final it is useless as well as bad. Useless because it is a year away, bad because all such tests for admission to examinations are bad. It results in the girls going about with books under their arms trying to absorb knowledge through the axilla instead of keeping their eyes and fingers employed in the active work of the wards and Out-Patients, and forgetting about it when off-duty. The nursing profession have before them the awful example of the medical curriculum over-burdened with numerous examinations. The writer has spent many hours over a period of two years at a conference that tried to work out a system that will cut the students' examinations down to two with a three-year run between them; but the vested interests of examiners and the reaction of individual teachers has made it come to nought. A young profession such as the nursing should be warned by the tangles in which we find ourselves, before these vested interests and traditions have become fixed in theirs. Except for this we find the chapters on the nursing school well written with the moderation of a wide outlook. We can endorse Miss MacManus's demand for the endowment of nursing teaching and can assure anyone with a few tens of thousands of pounds to spare that he or she cannot do better than confide them to Miss MacManus's charge for this purpose, and if they have a mere £70 to £100, she will make equally good use of this in the purchase of an epidiascope.

The section on the domestic staff contains much valuable information, and might well be read by every student before he attends in the O.P. Department. It would also be of value to many mistresses in its application to their own homes. We should have liked some guidance in figures as to floor and cubic space that should be considered minimal and some notes on ventilation in the paragraph that tells us that "each girl should have a cubicle to herself." It is a subject upon which the public is developing an opinion,

and there is hardly a building in London that comes up to modern ideas.

We would like the chapter on the laundry to be longer, though we do not know what we would put in it. Plant has an extraordinary habit of getting rapidly out of date. We were once told by an important official that he had never known a new medical superintendent to be appointed to a hospital without his at once asking for a complete new equipment for the laundry. The chapter on the linen stores is good, as it sums up the pros and cons of the two systems: Central linen stock and the Decentralised stock. The problem of how much reserve should be held either centrally or in the wards is an important one. Local hoarding may result in a totally unnecessary amount of linen being bought. We think, however, that the number of hand towels ("dressers," which includes sisters, nurses and wardmaids) allowed is too small. We believe that one of the greatest preventives of the spread of disease around a ward or of the acquirement of it by the staff is a gross extravagance in the laundry-bill of hand-towels. In the dress-making department it is not for us to make any comment, but we should like to say that no hospital has as yet got sufficiently away from the styles of Messrs. Bumble, Corney & Co. Hospital nightgowns and pyjamas which cover the patients should be made of bright-coloured material with flowered patterns. If this were done it would be unnecessary for the female patients to bring in their own garments of such decolletté shapes that a walk down a medical ward makes a mere surgeon blush. So long as the gowns provided are of neutral calico it will be impossible to prevent this. At the same time the provision of proper heliotherapy garments of pleasing colour for the use of both sexes would be of great advantage to the patients when the sisters do manage to get them out of doors.

Of the various schools and associations we will say nothing, except to ask why all massage students must be so bulky. We have often wondered whether a masseuse of the physique of Mrs. Helen Wills-Moody might not be more efficient than those of the shape of the majority of Channel swimmers.

It will be seen from what we have written that we agree with most of what Miss MacManus has written, that her book provides food for thought as well as valuable information of all sorts. We can heartily recommend it to anyone, even a man, starting on any administrative post in any hospital, large or small, civilian or military, Voluntary or State.

T. B. L.

Symptoms and Signs in Clinical Medicine. By E. NOBLE CHAMBERLAIN, M.D., M.R.C.P. Published by Messrs. Wright & Sons, Ltd. (Simpkin, Marshall, Ltd.). *Price* 25*s*.

THE author has written this book primarily for the student who has just entered the wards. The first chapter is devoted to the method of taking a clinical history. In the second chapter he deals with the general appearance of the patient in relation to disease, and describes the external appearances which are characteristic of well-defined clinical conditions such as hypo- and hyper-thyroidism, acromegaly, suprarenal tumour, phthisis, asthma, etc. Thereafter each anatomical system is taken separately and its physical signs described. He has made a point of relating these physical signs to disease, and in so doing has been able to stress those which are of practical importance to the exclusion of those which are of interest only to the historian and theorist. In correlating physical signs with disease he has not written a text-book of medicine, and in his preface he makes no pretensions to having done so, but he has succeeded in adding life to an otherwise dull subject. There is a wealth of good illustrations, both photographic and linear.

Individual readers, no doubt, will feel that insufficient has been written on one subject or too much on another, but, on the whole, the book is exceedingly well balanced. For myself, I thought it would have been valuable if a little more detail had been included in the description of urinary findings and blood chemistry.

D. K.

Sport

Rugby

SEASON 1935-36

THE season of 1935-36 being completed, I have pleasure, as in past years, in enclosing chart and statistics of the 1st XV performances.

It has been another disastrous year from a record point of view, the percentage, 31.8, is the lowest since the War, last season the percentage being 35.0; three more matches were, however, played this past season. 33 games were played, which include two Hospital Cup matches. Five games were scratched, viz.: St. Thomas's Hospital, Old

GUY'S HOSPITAL R.F.C.

SEASON 1935-6

92nd Season

PLAYED	WON	DRAWN	LOST
33	10	1	22

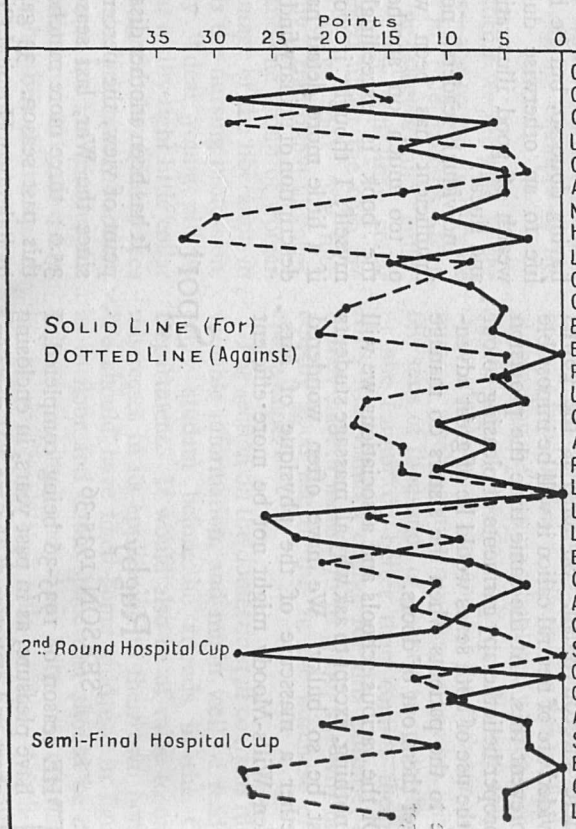
Percentage 31·8

Average Points per Game (For) 8·6

Total Points (For) 286

Average Points per Game (Against) 14·6

Total Points (Against) 484



OPPONENTS	DATE	G	F	A	G	T	G	T	GOALS	TRIES
			SCORE Points For		Against					
Old Paulines	1935 Sept. 14	H	9	20	2[R]	–	4[R+]	–	Steytler[◇], Dick	Ziervogel.
Catford Bridge	" 21	H	29	15	5[+]	2	2[R]	2	Dick[+]4, Kark.	Dick, Wright 2, Davies, Frazer, Stewart.
Coventry	" 28	A	6	29	–	2	4	3		Dick 2.
United Services	Oct. 5	A	14	5	1	3	1	–	Wright	Dick 2, Stewart, Whitteridge.
Old Alleynians	" 12	H	5	3	1	–	–	1	Whitteridge	Wright.
Aberavon	" 19	A	5	14	1	–	2[+]	2	Kark.	Birks.
Neath	" 21	A	11	30	1	2	3	5	Kark.	Stanyon-Jaques, Baxter, Frazer.
Harlequins	" 26	A	3	33	–	1	5[R]	3		Dick
London Hospital	" 30	H	15	8	3	–	1	1	Kark 3	Baxter, Darke, Fletcher.
Old Blues	Nov. 2	H	8	13	2[+]	–	2[+R]	2	Kark 2[+]	Wright
Cambridge Unv.	" 6	A	5	19	1	–	2	3	Dick.	Dick
Birkenhead Park	" 9	A	6	21	–	2	3	2		Wright 2.
Barts Hospital	" 13	A	–	5	–	–	1	–		
Rosslyn Park	" 16	H	6	5	1[+]	1	1	–	Kark[+]	Fletcher
Unv. of London	" 20	H	3	17	1[+]	–	3[R]	1	Kark[+]	
Gloucester	" 23	H	11	18	3[H]	–	3	1	Kark 3[++]	Stanyon-Jaques.
Army	" 30	H	6	14	–	2	1	3		Wright, Robin.
Richmond	Dec. 7	A	11	14	1	2	1	3	Kark.	Dick, Stanyon-Jaques, Fletcher.
Liverpool	" 14	H	–	–	–	–	–	–		
United Services	" 18	H	26	17	4	2	1	4	Kark 4.	Dick 2, Douglas, Steytler, Rees, Sharp.
London Scottish	" 28	H	23	9	3[R]	3	1[+]	2	Wright[◇], Kark 2.	Wright, Hartley, Kark, Hopkins, Darke.
Birkenhead Park	1936 Jan. 11	H	8	21	1	1	3	2	Kark	Douglas, Fletcher.
Cambridge Unv.	" 29	H	3	11	–	1	1	2		Darke.
Aldershot Services	Feb 1	A	8	13	1	1	2	1	Kark	Steytler, Wright.
Coventry	" 8	H	11	6	1	2	–	2	Kark	Wright 2, Dick.
St. George's Hospital	" 20	N	28	–	4[H]	4	–	–	Kark 3[++], Crabb.	Allen 2, Stewart, Nicholson, Davies, Fletcher.
Old Whitgiftians	" 22	A	–	13	–	–	2	1		
Old Cranleighans	" 29	A	10	9	1[R]	2	–	3	Allen[◇]	Dick, Fletcher.
Aberavon	Mar 7	H	3	21	–	1	4[+]	1		Dick.
St. Marys Hospital	" 10	N	3	11	1[+]	–	1	2	Kark[+]	
Bedford	" 14	A	–	28	–	–	2	6		
Gloucester	" 26	A	5	27	1	–	3	4	Wright	Douglas.
London Irish	" 28	A	5	15	1	–	3	–	Kark	Wright.

◇ Dropped Goal + Penalty Goal Other Goals shewn are Tries converted

Merchant Taylors, Bedford, Old Millhillians (H.) and Gloucester (A.); this latter game was, however, played at a rearranged date later in the season.

With regard to the points, there is a drop of 34 points against the figure for last season, our points remaining but one point less, but, as stated above, three more games were played.

The number of games won and drawn were the same as last season, viz., 10 won and one drawn.

We were unable to wrest the Cup from St. Mary's, being beaten by them in the semi-final, St. Mary's again winning the Cup in the final against St. Thomas's.

We failed to score on four occasions, viz.: Bart's., Liverpool, Old Whitgiftians and Bedford. Our opponents failed to cross our line on two occasions—Liverpool and St. George's Hospital.

During the past season a series of games were played against other hospitals, apart from the Hospital Cup Competition.

Our highest score was 29 points against Catford Bridge, the highest score against us being 33 by the Harlequins.

Note must be made that Dick played for Scotland in all their matches, and Nicholson played for England against New Zealand and Wales.

If these records are correct, Davies and French took part in all games but one—a good record.

Thirty-nine players have taken part in 1st XV matches during the season, as follows :—

Davies, French (32), Halamandres, Kark (30), Yerbury (27), Wright, Stanyon-Jaques (24), Darke (22), Dick (21), Steytler, Fletcher, Douglas (19), Allen (18), Stewart (16), Sharp (15), Gregory, Crabb (13), Whitteridge, Hopkins (11), Nicholson, Drew (10), Rees (9), Birks, Baxter, Crampton, Hartley, Walt (8), Chapman, Frazer (7), Robins (4), Harrington (3), Llewellyn (2), Green, Bowles, Milton, Van der Merwe, Ziervogel, McVicar and Crawford (1) each.

The following have scored tries :—

Dick (13), Wright (12), Fletcher (6), Stewart, Stanyon-Jaques, Darke, Douglas (3), Davis, Frazer, Steytler, Allen, Baxter (2), Ziervogel, Kark, Whitteridge, Birks, Robin, Rees, Sharp, Hartley, Hopkins and Nicholson (1) each.

The following have scored goals :—

	Tries Converted.	*Penalty Goals.*	*Drop Goals.*
Kark	20	8	—
Dick	5	1	—
Wright	2	—	1
Whitteridge	1	—	—
Crabb	1	—	—
Steytler	—	—	1
Allen	—	—	1

making a total of 63 tries, 29 tries converted, 9 penalty goals, 3 dropped goals. Total points, 286.

Our opponents' score was as follows :—115 tries, 52 tries converted, 5 penalty goals, 5 dropped goals. Total points, 484.

Therefore the complete figures are :—Played 33, won 10, drawn 1, lost 22. Points (for), 286; points (against), 484. Average points per game (for), 8.6; average points per game (against), 14.6; percentage, 31.8.

The following table gives the records from 1920-21 :—

Season.	*P.*	*W.*	*D.*	*L.*	*Points. F.*	*A.*	*Per cent.*
1920-21	27	19	2	6	600	96	74.07
1921-22	35	26	2	7	467	162	77.0
1922-23	32	19	4	9	343	203	65.62
1923-24	27	13	3	11	285	151	53.4
1924-25	31	16	3	12	291	230	56.45
1925-26	29	14	3	12	235	234	53.5
1926-27	34	18	3	13	371	294	57.35
1927-28	26	12	3	11	190	206	52.0
1928-29	30	11	1	18	220	404	38.3
1929-30	28	12	1	15	322	311	44.7
1930-31	28	13	2	13	306	289	50.0
1931-32	28	14	0	14	295	324	50.0
1932-33	30	14	1	15	374	347	48.3
1933-34	32	14	2	16	355	373	46.87
1934-35	30	10	1	19	287	518	35.0
1935-36	33	10	1	22	286	484	31.8

ROY C. HOLLOWAY,
Hon. Life Member, G.H.C.U.

Golf

ON May 12th the annual match between the Medicals and the Dentals was played at Sundridge Park. The course was in excellent condition, and the match resulted in a win for the Medicals by four matches to three with one halved.

The results of the matches are as follows :—

Medicals.		*Dentals.*	
I. Drybrough-Smith (2/1)	1	A. E. Parrott	0
B. C. M. Reed (4/3)	1	B. W. Roberts	0
C. C. Kennedy	0	P. Jeffrey (4/3)	1
S. M. Whitteridge	0	P. Spooner (4/3)	1
P. Wilson (1 up)	1	A. Walton	0
D. N. Praat	0	S. McCullum (3/2)	1
H. B. Smith (2/1)	1	K. Johnston	0
J. F. Harrington	½	J. Dossor	½

B. REED,
Hon. Sec., G.H.G.S.

Cricket

Guy's v. The Wanderers

THE Wanderers beat Guy's on Wednesday, 6th May, by 17 runs, and five minutes from time, after an exciting game.

The Wanderers won the toss and elected to bat. Nobody, however, batted with any real confidence, but G. W. Parker, after being given one or two lives, went on to score 100 out of a total of 248.

The tea interval was then taken, Guy's starting their innings on resumption.

T. D. Ridsdale and P. H. Birks batted confidently, scoring 53 and 54 respectively, and Guy's, having scored 180 for three wickets, seemed to have the game comfortably in hand. However, something of a catastrophe ensued, and, despite a valiant effort by T. J. M. Lowry, the innings closed for 231 in the last over but one.

Scores.—Wanderers, 248 (G. W. Parker, 100).

Guy's

G. M. A. Brown, c. Miller, b. Surridge	14
T. D. Ridsdale, b. Parker	53
G. O'Gorman, c. Milton, b. Soole	26
P. H. Birks, b. Parker	54
L. G. Morey, c. Milton, b. Pollard	22
A. D. Willis, hit wicket, b. Soole	10
H. Jones-Lewis, b. Parker	0
H. D. Foster, c. Milton, b. Parker	3
T. J. M. Lowry, c. Dolery, b. Soole	27
P. D. Wharton, run out	3
W. Wylde, not out	1
Extras	18
Total	231

Hospital Information, etc.

Notices

NORTH-WESTERN UNIVERSITY DENTAL SCHOOL, CHICAGO

SCHOLARSHIP

A Scholarship is offered to a Graduate of Guy's Hospital Dental School, on the nomination of the Dental Council, at the North-Western University Dental School, Chicago, as from September 1st, 1936. Details of the Scholarship may be obtained from the Medical School Office.

Applications for nominations should be lodged with the Dean, Guy's Hospital Dental School, London Bridge, S.E.1, not later than June 30th, 1936.

T. B. JOHNSTON,
Dean.

THE ADRIAN STOKES MEMORIAL FELLOWSHIP

Applications are invited for nomination to the Adrian Stokes Memorial Fellowship. The Fellowship is open to duly qualified Medical Practitioners or Graduates in Science in Pathology or Bacteriology.

Applicants must not be more than 30 years of age and must be anxious to carry out further study in Pathology or Bacteriology in any of their branches.

The Adrian Stokes Memorial Fellow is required to carry out this study during a period of not less than six calendar months in his year of tenure, at a University, School or Hospital or other institution, subject to the approval of the School Council, except the school in which he has received his medical or scientific education. The Fellowship is of the value of approximately £300.

Applications for nomination to the Fellowship must be lodged with the Dean, Guy's Hospital Medical School, London Bridge, S.E.1, not later than June 26th, 1936.

Pass List

ROYAL COLLEGE OF PHYSICIANS.
April, 1936.
M.R.C.P.

C. G. Baker	W. F. Shaw
B. McArdle	R. M. Stewart

UNIVERSITY OF CAMBRIDGE.
DOCTOR OF MEDICINE.
John Gray.
MASTER OF SURGERY.
Richard V Payne.

Papers by Guy's Men

J. Vernon Braithwaite. Further observations on pink disease. *Arch. Dis. Child.*, 1936, xi, 49.

F. Bouquet Bull. The faculty of observation, with particular reference to orthodontics. *Dental Record*, 1936, lvi, 361.

Changes of Address

Victor Constad, 1, The Gateways, Whitehead's Grove, Sloane Square, S.W.3. *Kensington* 7211.

H. J. Spon, Milton Abbey, Blandford, Dorset.

E. W. M. Williams, 7, Welbeck Road, West Harrow, Middlesex. *Byron* 3021.

A. R. O. Denton, Northam House, Saltern's Way, Lilliput, Parkstone, Dorset. *Canford Cliffs* 45.

A. G. Richmond, 15, Penn Hill Avenue, Parkstone, Dorset.

Birth

BLAIKLEY.—On March 28th, 1936, at 27, Welbeck Street, W.1, to Vivien (née Johnson), wife of J. B. Blaikley, F.R.C.S.—a son.

EDS. { P. W. C.
M. A. P.

GUY'S HOSPITAL GAZETTE

A Journal of Medicine, Surgery, Dentistry and Hospital News.

PUBLISHED FORTNIGHTLY.

Volume L — *6th June* 1936 — *Number* 1249

PASSIM

THERE is very little gossip in the place just now, and our ties with the excitements of the outer world are slender, but we have links, albeit small ones, with all three outstanding events of the last fortnight. The College 'bus went down, as usual, to Epsom for the Derby, and a very good day it was. Thirty shillings for the trip, position on the course, lunch with beer (or, for some, beer with lunch), and a private bookmaker; our compliments on this arrangement to the "Ship and Shovel." And in the Budget inquiry an old Guy's man offered help to the Court in making its diagnosis.

On the *Queen Mary* the resident staff was represented by the late children's house physician returning to his native land, and on her doubtless record-breaking return journey she will bear numerous Guy's men, including Dr. Conybeare and Mr. Doherty. At Whitsun everyone who could went away; of our own travels we will make mention later.

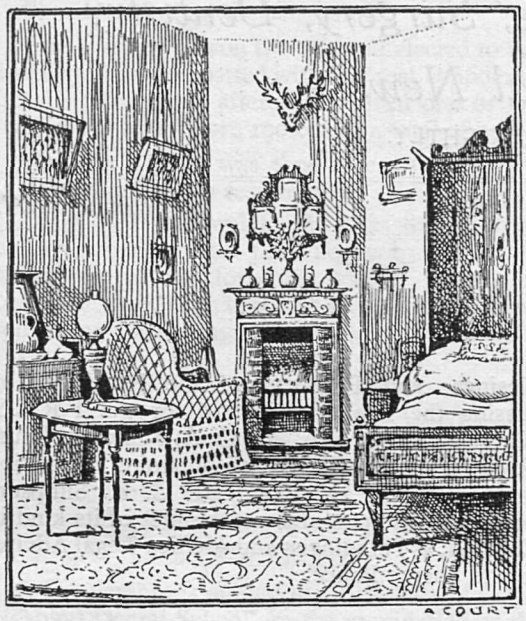
THE annual street collection for the Hospital is to be held on June 3rd, as we go to press. The areas over which collections are allowed to be made are the Borough, the City, Holborn, and the North side of Oxford Street, excluding the immediate precincts of any other teaching hospital. There is not always complete adherence to this rule. Last year's collection reached the record figure of £1,240, and the organisers hope to exceed this sum by some eight hundred pounds.

WE congratulate Mr. A. Bowen-Davies, Registrar to the Ear, Nose and Throat Department, and Mr. J. E. Spalding, house surgeon to Mr. Slesinger and President of the Residents, on passing the final examination for the F.R.C.S. We congratulate also Mr. C. A. Lillicrap, house physician to Dr. Mutch, on obtaining distinction in the London M.B., and Dr. C. K. Simpson, M.D., on his appointment, the first of its kind in England, as Pathologist and Medico-Legal Adviser to the Surrey Police.

THOSE of us who live in the College cannot but be a little startled at what is alleged to be the latest move on the part of the Catering Company. It is said that it has insured up to £10,000 against the death of any of its patrons through food poisoning. Flattering as this figure may seem to some of us, it is a compliment that brings with it the slight chill of suspicion. And we wonder if the taking out of this policy, if it has been taken out, has been prompted by the illness of one of our leading pathologists, alleged to have followed on the consumption of a sandwich. We have no doubt that with his well-known knowledge of forensic medicine our pathologist will probe deeply into the matter, and we hope that the Catering Company will not become too unpleasantly involeved.

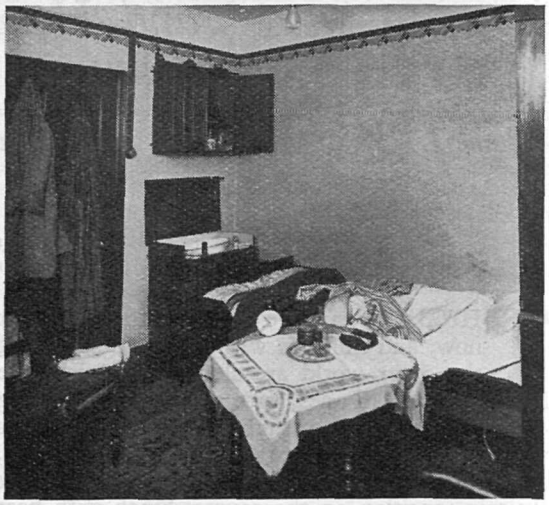
WE have, as we mentioned elsewhere, recently been away, and our travels took us to that famous teaching hospital, St. Dodekanus. The expedition was undertaken at the invitation of the mysterious Captain Farragut, who recently wrote in our columns with such indignation on the subject of the College, for, as he quaintly said, "You may think you live in a cow byre; come and see what a real sty is like." Captain Farragut kindly escorted us round the Hospital; we were un-

fortunate in not being accompanied by the senior surgeon, Dr. Strabismus, who, no doubt, had returned to Utrecht on holiday with Mr. Morton. " Ever since I came here from Guy's," said the



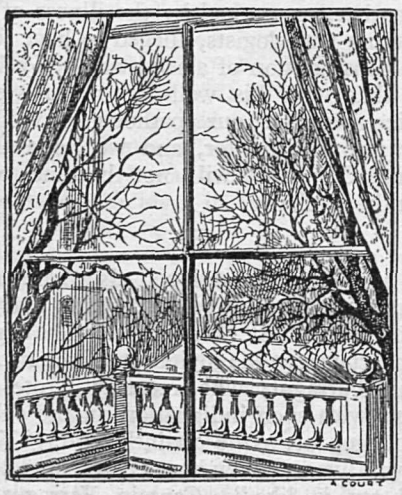
Guy's Alcove Room
(*Note pipe-rack, also overmantel and sporting alumni*)

Captain, as we went up the stairs, inadvertently sweeping a few bowler hats from the hat-stands, " I have striven to raise the College to the Guy's level." We entered the dining-room while he lunched, for he regretted that, owing to lack of space, it was impossible for him to entertain guests until after 8 p.m. We publish a photograph taken in honour of the occasion. The Captain found time to explain to us between the courses that the congestion at the lunch hour was not on that day as great as it might be, owing to the fact that the Residents were eating in a separate room, and

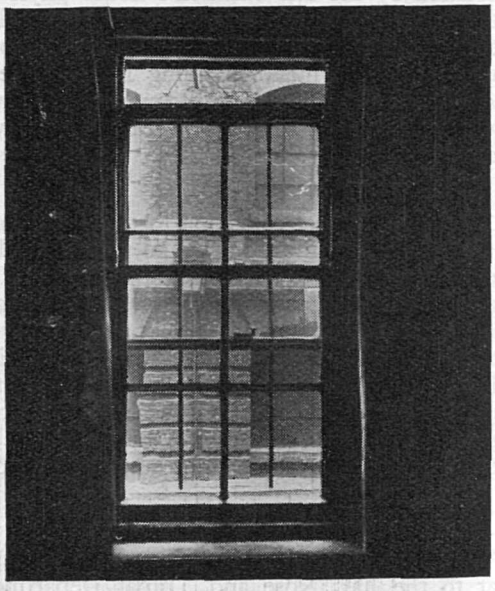


Alcove Room for St. Dodekanus' A.H.S.
(*Noble piece of furniture is on the right*)

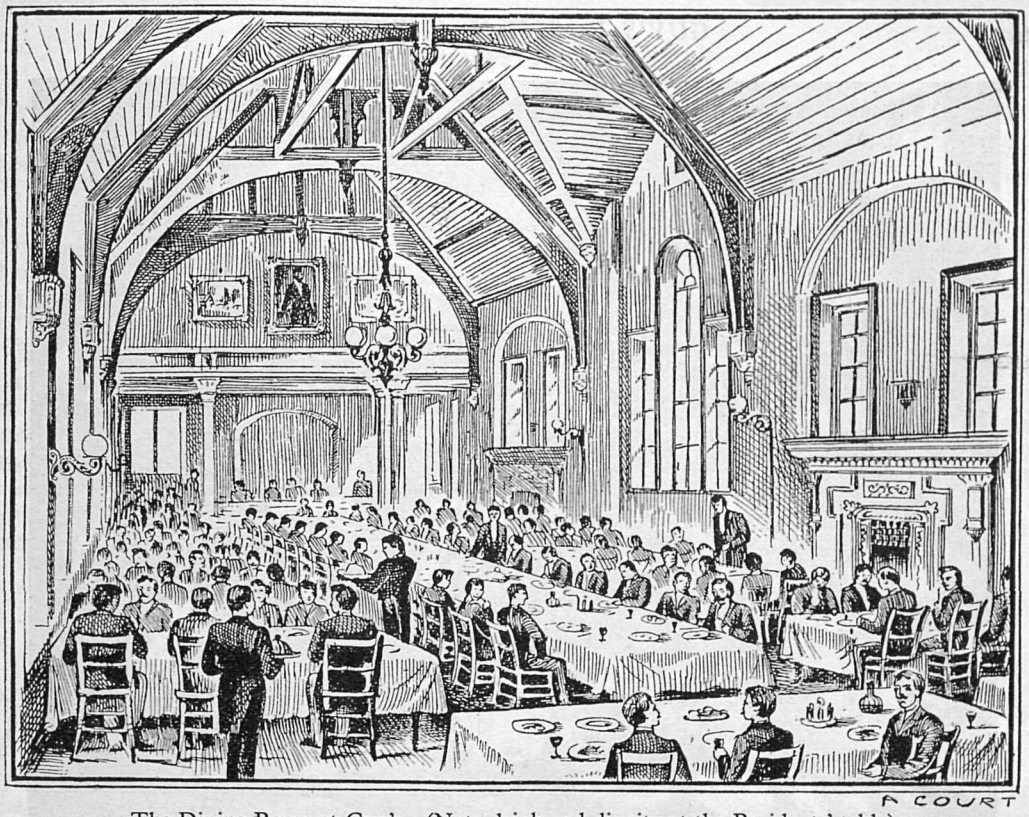
that the Derby sweepstake was taking place elsewhere; " everyone who knows the fine sporting spirit of the old Dodekanians," he said, " will



View from Guy's College

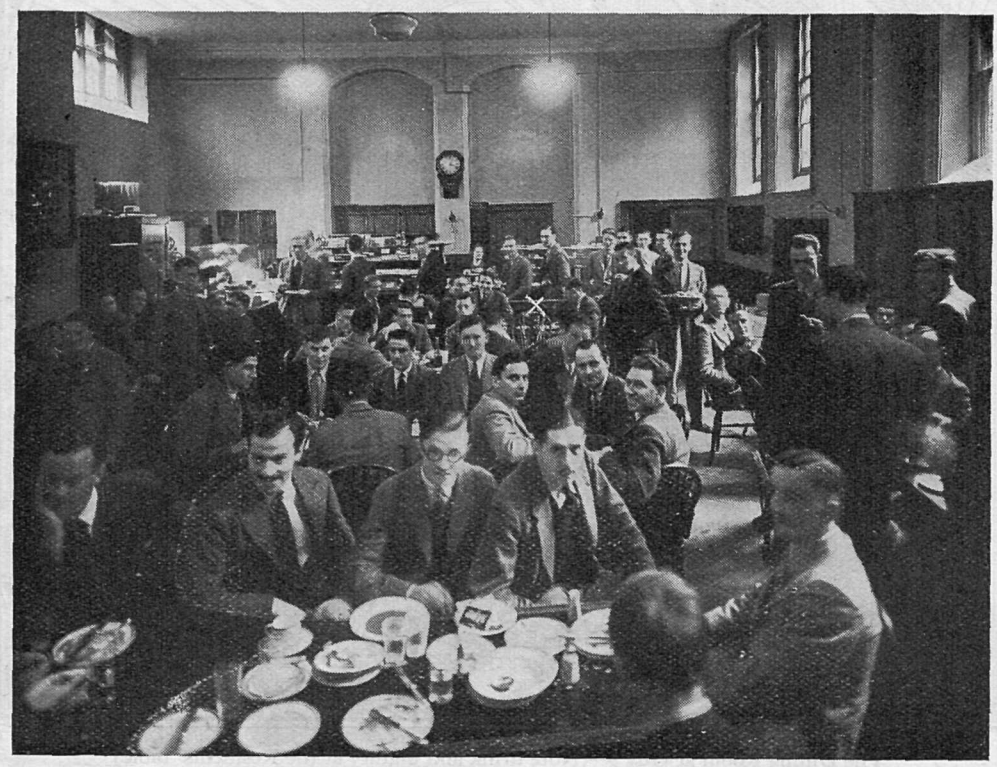


View from St. Dodekanus' College



The Dining Room at Guy's—(Note drink and dignity at the Residents' table)

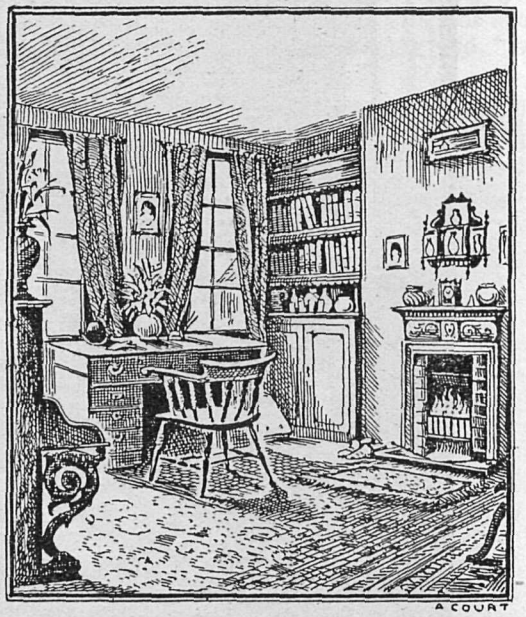
Dining Room at St. Dodekanus'



Lunch with St. Dodekanus'—X marks empty chair

realise why there are now only seventeen people queuing for seats here, for there are over a hundred attending the draw at this moment."

" Yes, the sporting spirit is always prominent at St. Dodekanus'," he continued, as we stepped over the cricket and tennis bags which were stacked on the stairs and landings on our way to the semi-basement cafeteria, analogous to the Guy's " Spit." " You complain of your ' Spit ',"' he said ; " take an eyeful of this." Here there were only sixteen people standing and one empty chair. Pausing to be shown further evidence of the sporting spirit of Dodekanians, we saw photographs of the alumni, the kappa gamma phi club of 1891, and the knur and spell teams from '83 to '06. We were then conducted to some of the bedrooms, the salubrious view from one of which we reproduce elsewhere. The other bedroom photograph is not that of the Chamber in Soho following removal of the body, but that of an Assistant House Surgeon of St. Dodekanus', which will be seen to contrast unfavourably with the alcove room provided rent free for those similarly placed at Guy's. The noble piece of furniture on the right is, at St. Dodekanus', a bookcase by day and a bed by night, but at this twilight hour of ten thirty-five a.m., when the picture was taken, is not exactly either. The handy little washstand



Guy's Sitting Room

(*Note the slippers*)

can be seen against the wall six inches from the bed, and well within reach is a chair containing clothes, a trousers press and a pair of plimsolls.

"Well," were the Captain's last words as we left him, "go back to your own Hospital and be thankful. You may well remember what Mr. Gladstone, then the Senior Governor of the Hospital, said at the opening of Guy's College in 1890." We didn't, but we later looked it up. Lest there should seem to any undiscriminating person to be any similarity between these pictures of the St. Dodekanus College and our own, we append for contrast some pictures of the latter. These, the proud copyright of the *Gazette*, have been jealously hoarded since their appearance in 1890, and readers will recognise readily how different is the noble dining-room, the decorous deportment of the diners, the dignity of the waiters; the *décor* of the alcove room with its fashionable furnishing still so familiar to us, the *recherché* sitting-room (the piece of furniture on the left, said the editors in 1890, is, we presume, privately owned), the pastoral view from the upper window—how different are these things from St. Dodekanus. Readers, we have much to be thankful for, for we live, as Mr. Gladstone said in 1890, in a "highly creditable building of which neither London nor this district need be ashamed."

REVERTING to Guy's, a Sub-committee on the College has met, and every effort at improvement is being made. St. Dodekanus will soon have to go a long way to fulfil the Captain's ambition of a College similar to ours.

Obituary

JOHN HERBERT GODSON, M.B. (Camb.), D.P.H.

DR. JOHN GODSON, who died early last month, was very well known in the Cheadle district, where he was born and where the family had a large professional connexion. He was the second son of the late Dr. Alfred Godson, and had two brothers, medical men. He was educated at Aldenham and Cambridge, and graduated as M.B., B.Chir. in 1893, completing his medical training at Guy's Hospital. There he was resident obstetrician, while he also held posts at the Great Ormond Street Children's Hospital and the East London Children's Hospital. He then joined his father in practice, whom he succeeded as medical officer of health for the Cheadle and Gatley urban district, a post which he held until just before his death.

Dr. Godson was prominent in the promotion of the social activities of the neighbourhood; he was a keen churchman, a trustee of the literary institute, and a supporter of the local athletic clubs. He was 69 years of age.

Gastritis*

By Arthur F. Hurst, D.M., F.R.C.P.

DURING the greater part of the nineteenth century all cases of dyspepsia, except those caused by gastric ulcer and cancer of the stomach, were supposed to be the result of gastritis. With the introduction of the test-meal by Ewald and Boas in 1885 more and more cases were ascribed to functional disturbances of the secretory and motor functions of the stomach, and by 1900 hyperchlorhydria, hypochlorhydria and achylia gastrica had been raised to the dignity of diseases, whilst chronic gastritis was regarded as an undiagnosable rarity of little clinical importance. With the birth of abdominal surgery a new era opened, and it became recognised that gastric and duodenal ulcer and chronic diseases of the gall-bladder had been often masquerading as functional disorders and were far more common than had previously been supposed, but no new light was thrown on the subject of gastritis. Since 1920, however, knowledge gained by the fractional test-meal, biopsy, radiology and gastroscopy has re-established gastritis as a clinical entity of the first importance.

The fact that it has been chosen as the first subject for discussion by the International Gastro-Enterological Society is a vindication of the work of Knud Faber, who ever since 1900, when he first began his investigations on the formalin-fixed stomach, in spite of continued neglect and opposition has never wavered in his belief that chronic gastritis is a common and extremely important disease. Since 1925 I have gradually come to the conclusion that chronic gastritis is the only common primary disease of the stomach, and that the prevention of gastritis would mean the prevention of chronic gastric and duodenal ulcer and of cancer of the stomach.

* Opening Address in the Discussion on Gastritis at the First International Congress of Gastro-Enterology held in Brussels, August, 1935.

CONSTITUTIONAL HYPERCHLORHYDRIA, HYPOCHLORHYDRIA AND ACHYLIA

Investigations on the physiology of the stomach of healthy young adults of both sexes show that considerable variations from the average occur under perfectly normal conditions. In about 80 per cent. these variations fall within comparatively narrow limits. This is shown, for example, in the results obtained by Bennett and Ryle (1921) with a fractional gruel test-meal in a hundred healthy male students who had never suffered from any form of indigestion. The curves of free hydrochloric acid in eighty

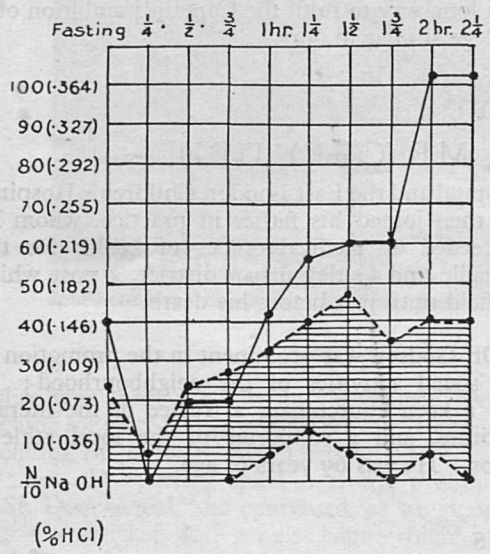


FIG. 1.
Test-meal of one of the ten with hyperchlorhydria in Bennett and Ryle's 100 healthy students.

of them fell within the shaded area shown in Figs. 1, 2, 3 and 4. Of the remaining 20 per cent. approximately one-half had constitutional hyperchlorhydria (fig. 1), and the other half constitutional hypochlorhydria or achylia. Both conditions are often familial; they are compatible with perfect health and do not *per se* give rise to any symptoms.

The secretion of mucus is the normal response of every healthy mucous membrane to irritation. The presence of mucus in a fractional test-meal is, however, an indication that gastritis is present, because nothing could be less irritating than the gruel meal used in England and America. But it is a matter of common experience that mucus is rarely present in much excess except in association with hypochlorhydria or achlorhydria. This is due to the fact that in constitutional hyperchlorhydria the stomach is capable of secreting much less mucus than in constitutional hypochlorhydria in response to irritation and as a result of inflammation. It has been suggested that the absence of mucus in hyperchlorhydria is due to its digestion by the acid gastric juice, but mucus differs from other proteins in the extreme slowness with which it undergoes peptic digestion.

CAUSES OF GASTRITIS

The causes of gastritis are so numerous and so common that few people can pass through life without being subjected to one or more of them. Fortunately the 80 per cent. of individuals with average acidity are so well projected that they rarely develop chronic gastritis as a result of these insults, but few of those with constitutional hyperchlorhydria and constitutional hypochlorhydria or achylia escape.

(*a*) Mechanical, Chemical and Thermal Irritants

The mouth acts as the first line of defence in protecting the alimentary tract from damage by swallowed irritants. Food and drink are brought to the body temperature, chemical irritants are diluted, and lumps of food are broken up by chewing and intimately mixed with saliva, which softens hard particles and coats insoluble ones with mucus. An individual with good and sufficient teeth, who takes the trouble to use them and avoids grossly indigestible food and excess of alcohol, need not swallow anything until its thermal, chemical and mechanical properties have been so altered that it will cause no irritation when it comes into contact with the gastric mucous membrane. But many people bolt their food before it has been thoroughly masticated, whilst others have insufficient teeth and inadequate dentures, with the result that the stomach is daily subjected to mechanical, chemical and thermal irritants. It is also often damaged by excessive indulgence in alcohol, and especially by taking spirits whilst fasting, when even a small quantity acts as a powerful irritant. Strong tea and coffee, mustard, pepper, curry, pickles, and excess of totally indigestible raw vegetable matter, taken in the mistaken idea that plenty of " roughage " is good for the health, may have the same effect. The stomach is frequently irritated by the unconscious swallowing of the " juice " of tobacco smoked in excess, especially when the stomach is empty.

Many people injure their gastric mucous membrane by taking irritant drugs—often quite needlessly—for supposed constipation, rheu-

matism and other self-diagnosed complaints, quite apart from those used in the treatment of chronic maladies, such as bromides, iodides, salicylates, mercury, digitalis and quinine. The contents of the duodenum act as irritants when introduced into the stomach: gastritis is consequently a constant sequel of gastro-jejunostomy and partial gastrectomy.

The stomach acts as a very efficient second line of defence for protecting the small intestine from irritation. Very hot and very cold food and drink are brought to the body temperature, and the gastric juice dilutes chemical irritants and softens hard particles. Peristalsis in the distal half of the stomach conveys the food to the pyloric sphincter, which does not relax if the food is insufficiently broken up, so that a churning process results, which does its best to perform the functions which the teeth should have carried out. The stomach, and especially the pyloric half in which the mucous membrane is most exposed to friction, is thus liable to suffer in its attempt to protect the small intestine. In the 80 per cent. of people with an average type of stomach the irritation of the mucous membrane is reduced to a minimum, but in the 10 per cent. with constitutional hyperchlorhydria and the 10 per cent. with constitutional hypochlorhydria and achylia chronic gastritis is likely to develop.

The irritants so far considered cause chronic gastritis as a result of repeated or continuous action over long periods. Chronic gastritis is also a common sequel of the acute gastritis produced by a more violent irritant acting on a single occasion. Acute food poisoning is the most common example of this, especially when vomiting and upper abdominal pain rather than diarrhœa and mid or lower abdominal pain are the prominent symptoms. It frequently happens that only one or two of several individuals affected at the same time develop chronic gastritis, these being the unlucky ones whose mucous membrane is insufficiently protected as a result of constitutional hypochlorhydria or achylia, and those with constitutional hyperchlorhydria in whom gastric juice of high acidity acts as an additional irritant which prevents the rapid recovery of the inflamed mucous membrane. This applies equally to the action of acute alcoholic excess. Beaumont in his observations on the gastric fistula of Alexis St. Martin, who presumably had an average normal gastric acidity, found that the mucous membrane recovered quickly from the acute gastritis associated with achylia following his bouts of excessive drinking. No such recovery takes place in individuals with constitutional hyperchlorhydria and hypochlorhydria. Thus although the majority of people who have frequent attacks of acute gastritis as a result of alcoholic orgies have no digestive symptoms and a normal gastric secretion in the intervals, those with hyperchlorhydria are very likely to develop ulcerative gastritis or gastro-duodenitis and those with hypochlorhydria are certain to develop chronic gastritis with achlorhydria. On the other hand, irritant poisons, such as arsenic and strong hydrochloric acid, produce such a severe gastritis that, if the patient survives, atrophy of the mucous membrane and achylia generally follow in every type of stomach.

(*b*) Chronic Infection

Infected material is constantly swallowed by people with pyorrhœa alveolaris, infected tonsils, chronic pharyngitis, and sinusitis, and by children with adenoids. In achlorhydria, whether due to primary achylia or secondary to chronic gastritis in individuals with constitutional hypochlorhydria, the antiseptic acid barrier of the stomach is lost, and streptococci from the mouth flourish in the stomach. Irritant toxins are then likely to form in the septic gastric contents. When gastric juice is secreted in normal or excessive quantities, and even when it is deficient in hypochlorhydria, swallowed bacteria are rapidly destroyed.

(*c*) Hæmatogenous Irritants

Many acute infections are accompanied by acute gastritis, which is often followed by chronic gastritis (Faber). The gastritis must be due mainly to the direct action of bacterial toxins conveyed in the blood to the gastric mucous membrane, which perhaps makes an attempt to excrete them. The vomiting in scarlet fever and the abdominal symptoms in gastric influenza are the result of acute gastritis, and acute ulcers and erosions are often found in the stomach and duodenum in fatal cases of a great variety of infections. The frequency of achlorhydria in young children with a history of enteritis has been ascribed to the toxæmia resulting from the latter. It is, however, much more probable that both the gastritis and enteritis are the result of a common extrinsic irritant present in the food.

The toxins of uræmia and those produced in the skin in extensive burns may also cause acute ulcerative gastro-duodenitis.

The development of acute hæmatogenous gastritis is probably quite independent of any special type of gastric constitution, though it is

only likely to become chronic in individuals with hyperchlorhydria, hypochlorhydria or achlorhydria.

EFFECT OF GASTRITIS ON GASTRIC SECRETION

The functional activity of an organ is always reduced when it is inflamed. In severe cases the swollen cells may obstruct the narrow lumen of the tubular glands and also the intracellular canaliculi of the oxyntic cells, as Simpson (1935) has demonstrated on fresh gastrectomy specimens. In acute gastritis no gastric juice is secreted, as was shown by Beaumont in his observations on Alexis St. Martin in 1833. In chronic gastritis the secretion is reduced to an extent which varies with the severity and the duration of the inflammation, the actual amount of free acid present depending upon the type of secretion present in each individual in health. Thus hyperchlorhydria becomes less extreme or may be replaced by average normal acidity, and even, in exceptional cases, by hypochlorhydria. This is well seen in the gastritis accompanying chronic ulcer, as when medical treatment has resulted in the healing of the ulcer and the disappearance of the gastritis, the acidity is almost always higher than it was before. Thus in seventeen cases of gastric ulcer and thirty-four of duodenal ulcer under my care, in which a second test-meal was given at the end of treatment, the acidity had increased in all but ten, eight of which already had hyperchlorhydria and two high normal curves. The gastric cases comprised one achlorhydria which became hypochlorhydria, one low normal which became high normal, one normal which became hyperchlorhydria, seven high normals which became hyperchlorhydrias and one which remained unchanged, and six hyperchlorhydrias, four of which became still higher, two remaining unaltered. Of the duodenal cases one with hypochlorhydria became a high normal, and one an extreme hyperchlorhydria (fig. 2), two low normals became high normals, one normal became high normal and one became hyperchlorhydria, nine high normals became hyperchlorhydrias and one remained unaltered, and of eighteen hyperchlorhydrias twelve became still more hyperchlorhydric, six remaining unaltered.

Constitutional hypochlorhydria is almost always replaced eventually by complete achlorhydria. In most cases this can be overcome by removal of the exciting causes, an unirritating diet, and lavage every morning with dilute hydrogen peroxide. Thus is 82 per cent. of thirty-four of my cases of achlorhydria treated in this way free acid returned (Hartfall, 1932).

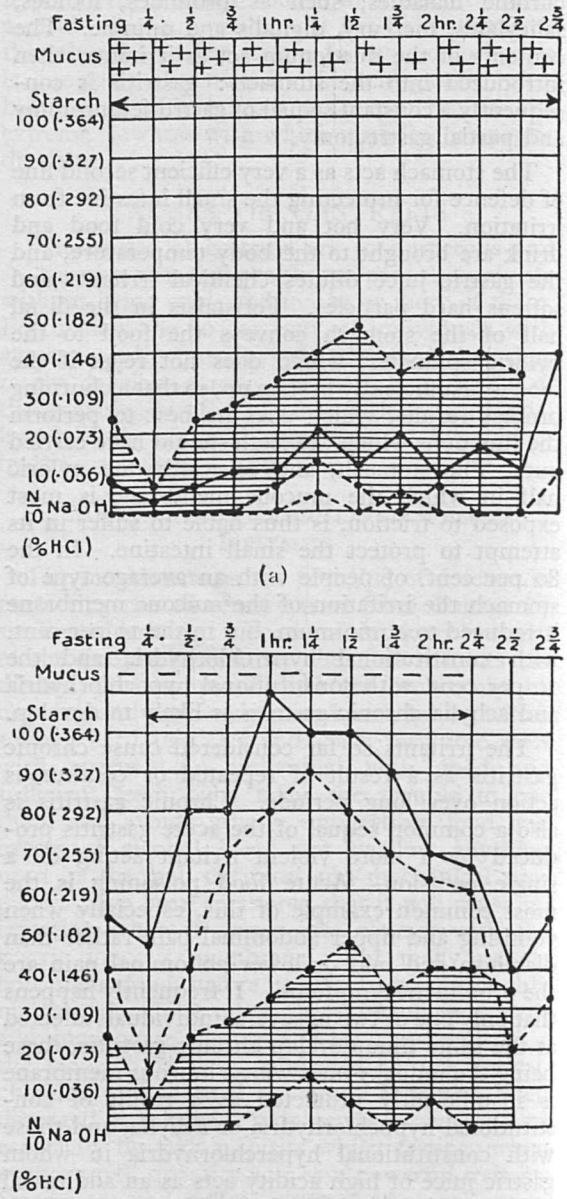
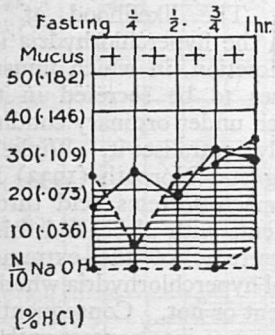


FIG. 2.

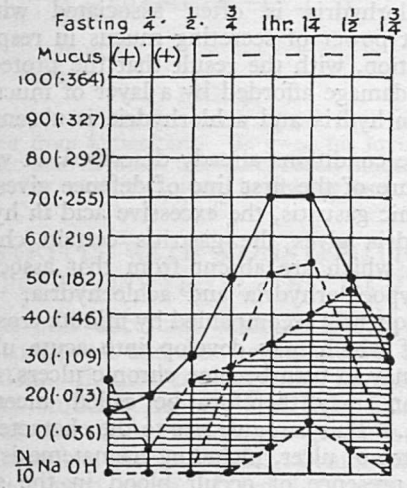
Duodenal ulcer with chronic gastritis :
(a) July 20th, 1928 ; hypochlorhydria.
(b) August 17th, 1928 ; after a month's treatment, gastritis disappeared and ulcer healed ; hyperchlorhydria unmasked.

These are the cases in which free acid is secreted after the injection of histamine, but I have seen a few cases of histamine-refractory achlorhydria

in which the acid returned after treatment. The reduction in acidity is partly due, as it is in hyperchlorhydria, to the depressing effect of



(a)



(b)

FIG. 3.

(a) Test-meal in a case of pernicious anæmia on January 9th, showing achlorhydria and excess of mucus.

(b) Test-meal on April 2nd, showing normal acidity and excess of mucus in only two fractions after treatment by gastric lavage.

degenerative charges in the oxyntic cells on their functional activity and to obstruction to the intra-cellular canaliculi by the swollen cells, but it is also partly due to the attempt made by the gastric mucous membrane to protect itself against mechanical and chemical irritants by the secretion of mucus. This mucus is produced by the tall columnar cells which line the whole surface of the stomach; it is distinct from the dissolved mucus which is always present in normal gastric juice and is presumably secreted by some of the cells of the gastric glands. It is such a weak alkali that its buffer action is hardly appreciable, but it contains sufficient sodium bicarbonate to neutralise some of the acid of the gastric juice (Bonis, 1930). At the same time some of the tenacious mucus adheres to the surface of the mucous membrane and blocks the mouths of the secreting tubules, thus reducing the quantity of gastric juice which can gain access to the lumen of the stomach. In about 60 per cent. of these cases the excess of mucus is sufficient by itself to account for the achlorhydria, as on giving a second test-meal after washing the stomach with plain water so as to dislodge the mucus, free acid is found in some of the fractions. In an additional 20 per cent. of cases treatment of the gastritis is followed by restoration of normal secretory activity of the stomach (fig. 3).

In severe chronic gastritis with achlorhydria the inflammation finally results in such a degree of atrophy of the glands that restoration of secretion is impossible and the injection of histamine produces no response, even if all active inflammation is overcome by treatment, the condition being, in fact, a true achylia gastrica and not merely achlorhydria. An alkaline watery secretion containing protein and mucus continues to be secreted for a time. This eventually disappears, and at the same time the secretion of pepsin ceases.

The gastroscopic appearance of the inflamed mucous membrane is the same whether hyperchlorhydria or achlorhydria is present. Thus achlorhydria is found in every variety of gastritis. In hypertrophic gastritis achlorhydria is present in about 50 per cent. of cases and hyperchlorhydria or normal acidity in the remainder. Only in the rare condition of complete atrophy of the whole mucous membrane is achlorhydria constantly found.

It is clear from all these facts that gastritis associated with high or normal acidity, so-called acid gastritis, is not, as was formerly believed by Faber, Zweig and others, simply an early stage of gastritis associated with achlorhydria. Moreover, I know of no evidence to show that hyperchlorhydria can develop during an attack of gastritis in a patient whose acidity was originally within the average normal limits, nor have I seen any series of test-meals from the same patient showing the initial development of hyperchlorhydria and the subsequent change to achlorhydria. The large majority of patients with the gastritis associated with duodenal ulcer still have hyperchlorhydria after the duodenal ulcer has been present for ten, twenty or more

years. There is also no evidence for the other view now held by Faber, Porges and most Continental writers, that hyperchlorhydria is the result of pre-pyloric gastritis and achlorhydria the result of fundus gastritis. Thus Faber himself has failed to find any constant parallelism between the degree of gastritis in the fundus and the occurrence of achlorhydria. Many observers have seen cases of achlorhydria with severe gastritis confined to the antrum. On the other hand, the whole stomach may be involved in hyperchlorhydria with or without duodenal ulcer. In the gastritis which may follow gastro-jejunostomy the inflammation is most severe at the stoma and is often more obvious in the part of the stomach proximal to it than in that distal part, but hyperchlorhydria is commonly present.

Both gastritis with hyperchlorhydria and gastritis with achlorhydria are due to the same causes and are pathologically similar except in the extreme atrophic form. I believe that the amount of free acid present depends solely upon the constitution of the individual concerned.

GASTRITIS WITH CONSTITUTIONAL HYPERCHLORHYDRIA.

The abundant gastric juice in constitutional hyperchlorhydria tends to protect the stomach from irritation when the first line of defence is inadequate. But the deleterious effect of friction on the mucous membrane of the distal half of the stomach when hard or large pieces of food are swallowed continues, and irritation by alcohol, tobacco and drugs may occur during the many hours in which the stomach is empty or contains nothing but a small quantity of very acid gastric juice. If even a mild degree of gastritis results from this, the mere presence of hyperchlorhydria is likely to aggravate it, as, although hyperchlorhydria is not itself a pathological condition, the excessive acidity of the gastric juice is a potential danger. The healthy mucous membrane is always bathed in gastric juice, and is neither digested by its pepsin nor irritated by its free hydrochloric acid. After death, however, the mucous membrane is rapidly digested. During life localised necrotic areas may also undergo digestion, and possibly this also occurs in areas in which the circulation is temporarily arrested or very deficient before actual necrosis has occurred. As peptic digestion is no more active with 0·3 per cent., than with 0·08 per cent. free hydrochloric acid, such digestion is not specially likely to occur in the presence of hyperchlorhydria. But although the living mucous membrane can never undergo peptic digestion, even when abnormally vulnerable as a result of gastritis, it is very liable to be damaged by free hydrochloric acid if present in a strength greater than the average, as the recent experiments of Simpson (1934) clearly demonstrate. The likelihood of this is still greater when the hyperchlorhydria is associated with hypersecretion, in which unusually strong acid continues to be secreted in the absence of food, which under ordinary conditions dilutes it and partially neutralises it. Winkelstein (1933) and Henning and Norpath (1933) have shown that the stomach secretes acid throughout the night in patients with ulcer, and this appears to be a characteristic of the extreme forms of constitutional hyperchlorhydria whether an active ulcer is present or not. Consequently undiluted gastric juice comes into contact with the mucous membrane of the stomach and duodenal bulb for nine or ten hours every night. Moreover hyperchlorhydria is often associated with a deficient power of secreting mucus in response to irritation, with the result that the protection against damage afforded by a layer of mucus in hypochlorhydria and achlorhydria is absent.

In the conditions already described, in which the failure of the first line of defence gives rise to chronic gastritis, the excessive acid in hyperchlorhydria gives the gastritis certain characteristics which are absent from that associated with hypochlorhydria and achlorhydria. It is very frequently accompanied by minute erosions, some of which may develop into acute ulcers, which may in turn become chronic ulcers. The condition may therefore be called ulcerative gastritis. This can give rise to the characteristic symptoms of ulcer, including hæmatemesis, and to the presence of occult blood in the stools whether a chronic ulcer is present or not.

Owing to the familial incidence of constitutional hyperchlorhydria it is common for gastric and duodenal ulcers to occur in several members of the same family.

It is interesting to note that both Hart (1919) in Germany and Stewart (1929) in England found chronic gastric or duodenal ulcers or scars of such ulcers in about 10 per cent. of all necropsies, this being also approximately the proportion of healthy young adults with hyperchlorhydria (Bennett and Ryle). It would appear, therefore, that an individual with constitutional hyperchlorhydria is very liable sooner or later to develop an ulcer, though I have seen a few men and women over 70 years of age with extreme hyperchlorhydria who had never had a symptom or sign of ulcer or any form of indigestion (fig. 4).

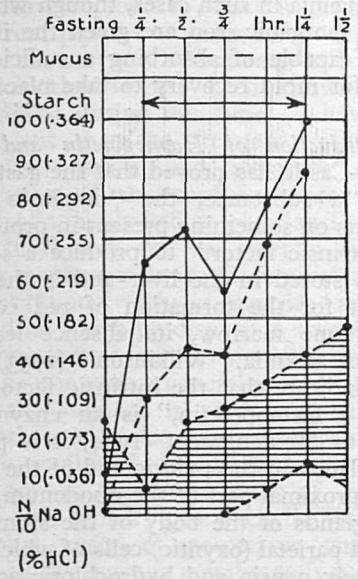


FIG. 4.

Hyperchlorhydria in a man of 76, who had never suffered from indigestion. He owed his immunity to the fact that he was a teetotaler, hardly smoked at all, had perfect teeth and never bolted his food.

GASTRITIS WITH CONSTITUTIONAL HYPOCHLORHYDRIA AND ACHYLIA

It is still uncertain whether achlorhydria is ever congenital and due to an inborn error of secretion. In their investigations on a hundred healthy students Bennett and Ryle found that four of the ten with deficient gastric secretion had complete achlorhydria. Combining their statistics with those of Baird, Campbell and Hern (1924), Wright (1924), and Apperly and Semmins (1928), it is found that 3·4 per cent. of 497 healthy students and children had achlorhydria. It is difficult to decide whether the achlorhydria was a result of constitutional achylia or whether it was acquired as a sequel of acute gastro-enteritis or some general infection in infancy or early childhood. Achlorhydria is often familial; this with the associated abnormality of the gastric mucous membrane rather than any constitutional weakness of the bone marrow or spinal cord is the cause of the frequent occurrence of pernicious anæmia and subacute combined degeneration of the spinal cord in more than one member of a family. Records have been published of about 140 families in which two or more members in one to four generations were affected with pernicious anæmia with or without subacute combined degeneration of the cord, and of 59 families in which one of these diseases occurred in one or more members of a family and achlorhydria in others, some of whom were young children (Hurst, 1927; Conner, 1930; Wilkinson and Brockbank, 1931). Ellis and Frank have both observed twins suffering from pernicious anæmia. All these facts point strongly to the achylia being constitutional. It is possible, however, that the constitutional condition is an extreme degree of hypochlorhydria, which is likely to result in achlorhydria at an early age and in pernicious anæmia or combined degeneration of the cord in later life in several members of a family. That achlorhydria may be a sequel of familial hypochlorhydria was shown by two sisters under my care with achlorhydria; treatment of the gastritis led to restoration of the secretion of acid in one but not in the other. Moreover Wilkinson and others have found that hypochlorhydria as well as achlorhydria is frequently present in other members of the family of patients with pernicious anæmia.

Already at the age of twenty about 4 per cent. of healthy people have achlorhydria, which must be due either to constitutional achylia gastrica or latent chronic gastritis. Hartfall has analysed the results of fractional test-meals given to 2,448 of my private patients. Excluding twenty cases of achlorhydria artificially produced by gastro-jejunostomy, twenty-one cases associated with carcinoma of the stomach, and fifty-one with pernicious anæmia, there remain 2,356 patients of whom 242 (10·3 per cent.) had achlorhydria. From 10 to 19 the incidence was 4 per cent., which is identical with that found by Bennett and Ryle in their normal students; there was a rise of 4 per cent. to the 30-39 period, and a further rise of 4 per cent. to the 40-49 period, but in the next three decades taken together there was a rise of only about 4 per cent. It can thus be concluded that all, or very nearly all, of the individuals with constitutional hypochlorhydria, as well as a few with normal acidity, eventually develop achlorhydria as a result of gastritis. Gastritis with achlorhydria generally gives rise to no gastric symptoms in spite of the complete absence of peptic digestion, though it may occasionally produce a mild form of chronic indigestion, and it is not an uncommon cause of nausea.

In achlorhydria the excess of mucus is a poor substitute for gastric juice, and the consequent loss of the second line of defence leads to irritation of the small intestine, so that duodenitis and enteritis develop in addition to the gastritis. The mechanical and chemical irritation of the intestine explains why chronic and recurrent

diarrhœa is often caused by achlorhydria, although in the majority of patients with achlorhydria the bowels are regular.

Swallowed bacteria flourish in the alkaline contents of the stomach and may pass into the duodenum, which is normally sterile, but now swarms with bacteria. Knott (1927) has shown that the increased alkalinity of the intestinal contents allows bacteria which are normally confined to the colon to ascend the small intestine as far as the duodenum and stomach, both of which contain colon bacilli from the large intestine even more frequently than streptococci from the mouth. Chronic cholecystitis is generally a result of an ascending *B. coli* infection of the gall-bladder, which is especially likely to occur in the presence of achlorhydria (Hurst, 1932). This is a much more probable explanation of the achlorhydria found in about 50 per cent. of patients with gallstones than the contrary explanation that the gall-bladder disease causes the gastritis. Achlorhydria is also a very important predisposing cause of intestinal infections, such as typhoid and paratyphoid fever, bacillary and amœbic dysentery, and cholera—the organisms of which are rapidly destroyed by the normal gastric juice—and its presence is therefore a constant source of danger to residents in tropical countries (Camps). The toxæmia which follows the intestinal infection resulting from achlorhydria is one factor in about 25 per cent. of cases of rheumatoid arthritis, and in some cases of asthma, skin diseases, and other conditions associated with allergy, especially in children.

EFFECTS OF GASTRITIS ON HÆMATOPOIESIS AND THE NUTRITION OF THE CENTRAL NERVOUS SYSTEM

(a) *Absorption of Iron.*—The diet taken by most people contains amply sufficient iron to maintain the normal percentage of hæmoglobin in the blood. When, however, the diet is deficient or excessive quantities of blood are lost in menstruation or from other sources, a microcytic anæmia results if an insufficient proportion of the iron in the food is absorbed. This may occur in achlorhydria (Faber, 1908), but it is uncertain whether it is due to there being no hydrochloric acid to convert the organic iron in the food to a form suitable for absorption, or to a failure of absorption by the small intestine, which is so frequently in an unhealthy condition when achlorhydria is present. The latter is probably the true cause, as the simple administration of hydrochloric acid has no effect on the anæmia in such cases, though when large doses of inorganic iron are given the intestines are still capable of absorbing a sufficient proportion for rapid recovery to take place (Witts, 1930).

(b) *Production of Hæmopoietin and Neuropoietin.*—Castle has proved that the gastric juice contains a substance, the "intrinsic factor," which acts on something present in protein food, the "extrinsic factor," to produce a substance which is stored in the liver and is the normal stimulant for the formation of red corpuscles by the bone marrow, its absence leading to pernicious anæmia. Wilkinson's (1933) investigations indicate that the intrinsic factor, which he calls "hæmopoietin," is an enzyme. According to Meulengracht (1934) it is produced by the glands in the pyloric end of the stomach and the proximal part of the duodenum, but not by the glands of the body of the stomach, the chief and parietal (oxyntic) cells of which secrete respectively pepsin and hydrochloric acid.

The gastric juice contains an enzyme which is produced by the same glands and acts in the same way as hæmopoietin to form a substance which is essential for the normal nutrition of the central nervous system. This enzyme, which may be called "neuropoietin," is not identical with hæmopoietin, as either may be absent from the gastric juice whilst the other is present. Its absence leads to degeneration of the posterior and lateral columns of the spinal cord. Though the resulting disease is generally associated sooner or later with pernicious anæmia, this is not invariably the case, and degeneration of the cord was found in only 85 per cent. of fatal cases of pernicious anæmia in the days before the introduction of treatment by liver. Salus and Reimann (1934) found hæmopoietin in the gastric juice of five patients with subacute combined degeneration of the cord and achlorhydria whose blood picture was normal, though it was absent in seven other patients who had pernicious anæmia in addition to the spinal degeneration.

Achlorhydria is found in about 99 per cent. of cases of the pernicious anæmia and subacute combined degeneration of the spinal cord syndrome, though it is not the actual cause of it, the absence of hydrochloric acid from the gastric secretion being associated with the absence of the hæmopoietin required for the production of the natural stimulant of hæmatopoiesis and of the neuropoietin required for the normal nutrition of the central nervous system. The gastritis is the primary condition; there is consequently often a history of chronic diarrhœa

or of other symptoms to which it has given rise, dating from months or years before the onset of anæmic or nervous symptoms, and in many cases achlorhydria has been known to have been present during this time. I have already pointed out that the frequent occurrence of pernicious anæmia and subacute combined degeneration of the cord in more than one member of a family and its occasional association with achlorhydria but no anæmia or nervous disorder in others is due to the familial occurrence of constitutional achylia gastrica and hypochlorhydria, which predispose to severe gastritis.

The production of hæmopoietin and neuropoietin by the mucous membrane of the pyloric end of the stomach is very rarely diminished sufficiently to give rise to pernicious anæmia and subacute combined degeneration of the spinal cord except in the severe cases of generalised gastritis in which true achylia occurs. In exceptional cases of pernicious anæmia the damage to the mucous membrane is not irreparable. I have had three cases in which the secretion of hydrochloric acid returned as a result of treatment of the gastritis; in one of these, recorded by Shaw in 1926 (fig. 3), the patient is still, eleven years later, completely well with normal gastric juice and normal blood, though he has never taken stomach extract or liver. In the other two cases the restoration of gastric acidity was not accompanied by any return of hæmopoietin production, and the patients still require liver. Similar cases of restoration of acidity have since been recorded by McPeak and Neighbors, Wilkinson, Heeres, Seyderhelm and Opitz, Davidson and Alsted. In Davidson's case hæmopoietin is now also secreted, so his patient can be classed with my first case as an example of complete recovery. In those cases in which the secretion of hydrochloric acid, but not of hæmopoietin, returns, the glands in the pyloric end of the stomach, but not those of the body, are presumably degenerated, just as they must be in the 1 per cent. of patients with pernicious anæmia in whom free acid is present throughout. Hydrochloric acid continues to be secreted in subacute combined degeneration of the cord, though no neuropoietin is produced, in about the same proportion of cases.

CARCINOMA OF THE STOMACH

Achlorhydria or an extreme degree of hypochlorhydria is present in about 70 per cent. of patients with carcinoma of the stomach. It was formerly believed that the achlorhydria was a result of the carcinoma, but in 1929 I brought forward evidence to show that the achlorhydria is really caused by chronic gastritis, which is present before the growth develops, the growth being a result of malignant degeneration of the chronically inflamed mucous membrane. All the evidence I have been able to collect since then confirms this theory. I know of no case in which free acid was found when a growth was first recognised and disappeared at a later date.* The hyperchlorhydria remained unaltered in three patients with chronic ulcers, which subsequently underwent malignant degeneration. In another case of ulcer-cancer, in which operation was refused, the acidity actually rose whilst the carcinoma was growing, presumably owing to the favourable effect on the associated gastritis of the diet and lavage, which

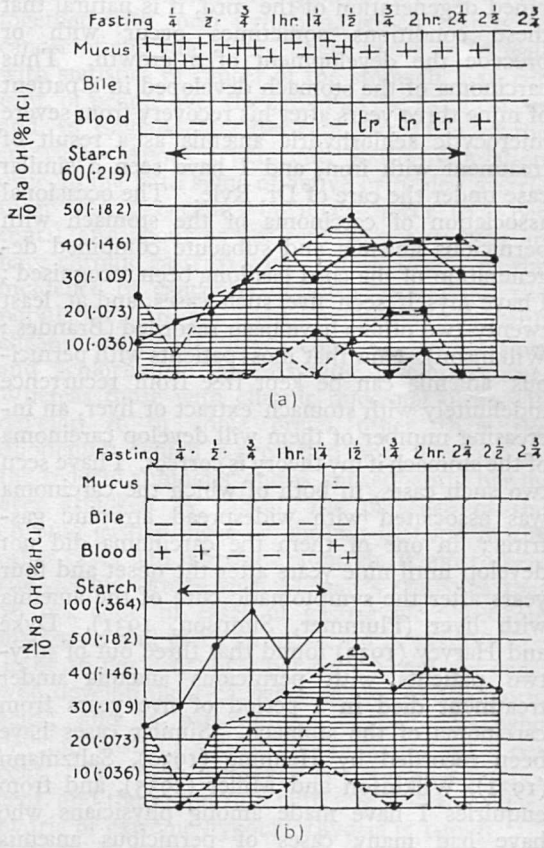


FIG. 5.

Test-meals in a man of 73 with ulcer-cancer; (a) 2/12/32, and (b) 10/2/33.

(*) With the exception of a few cases of pyloric carcinoma in which the progressive gastritis caused by stagnation of food in the stomach led to achlorhydria (Golding-Bird, 1841; J. D. Robertson, 1934).

kept the patient comparatively free from pain (fig. 5). A similar rise was observed by Polland and Bloomfield (1931) in two cases of carcinoma after an interval of four and six months respectively. On the other hand, I have seen five patients in whom achlorhydria was known to be present before the carcinoma developed, and I have found records of at least twenty-two similar cases.

As carcinoma follows chronic achlorhydric gastritis, which may also cause microcytic anæmia, pernicious anæmia and subacute combined degeneration of the cord, it is natural that these conditions sometimes occur with or precede the development of a growth. Thus carcinoma of the stomach developed in a patient of mine three years after his recovery from severe microcytic achlorhydric anæmia as a result of treatment with iron, and I have seen a similar case under the care of Dr. Ryle. The occasional association of carcinoma of the stomach with pernicious anæmia and subacute combined degeneration of the cord has long been recognised; I have myself seen five such cases, and at least twenty-two others have been recorded (Brandes; Wilkinson). Now that most patients with pernicious anæmia can be kept free from recurrence indefinitely with stomach extract or liver, an increasing number of them will develop carcinoma of the stomach if my theory is correct. I have seen two such cases, in both of which the carcinoma was associated with widespread atrophic gastritis; in one of them the carcinoma did not develop until nine years after the onset and four years after the symptomatic cure of the anæmia with liver (Plummer, Simpson, 1931). Dyke and Harvey (1933) found that three out of fifty-two patients with pernicious anæmia under treatment died in a period of five years from carcinoma of the stomach. Similar cases have been recorded by Henning (1930), Saltzmann (1931), Wilkinson and Miller (1935), and from enquiries I have made among physicians who have had many cases of pernicious anæmia under their care I find that a good many others have been observed. I have also seen a woman of 65 with sprue associated with megalocytic anæmia and achlorhydria, who recovered completely with the usual milk diet without liver, stomach, iron or acid; she died nine years later from carcinoma of the stomach.

The association of cancer and pernicious anæmia with a constitutional and familial tendency to develop achlorhydric gastritis was strikingly demonstrated in the history of a family described by Borovanska-Felklova, in which a man died of carcinoma of the stomach, his eldest son had pernicious anæmia and subsequently developed carcinoma of the stomach, two other sons had pernicious anæmia, and the fourth had achlorhydria alone.

In almost every undoubted case of ulcer-cancer in which a test-meal has been given free acid was found in spite of the fact that the history was often very long, whereas when the evidence pointed against the growth being secondary to a simple ulcer achlorhydria was generally present, even if the test-meal was given at a very early stage of the disease (Orator, 1925; Stewart, 1931; Simpson, 1935). Free hydrochloric acid was found in all but one of eleven cases of carcinoma of the stomach with more than eighteen months' history, whereas seventeen out of nineteen with a history of less than six months had achlorhydria; these statistics of my own (1929) are confirmed by those of Panton and Tidy (1910), Orator (1925), Stewart (1929) and Confort-Vanzant (1934). The chance of long survival after a successful gastrectomy is greater in patients with achlorhydria than in those with free acid (Hartman, 1921), although the reverse would be the case if achlorhydria were the result of the presence of a growth in a stomach which had hitherto produced free acid.

For the development of cancer an intrinsic factor—the individual's constitutional and inherited susceptibility to cancer—is the first essential. The second essential is a constitutional and inherited organ-inferiority. Lastly unless an extrinsic factor in the form of chronic irritation is present the organ will escape disease.

Cramer (1934) has drawn attention to the fact that the total incidence of cancer is approximately the same in all countries, all classes and both sexes. This indicates that the first factor—the constitutional susceptibility to cancer—is constant. But the incidence of cancer of the stomach shows remarkable differences in different

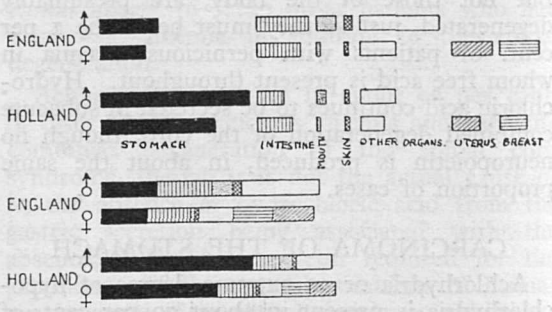


FIG. 6

Diagram showing the relative mortality from cancer of different organs and the total mortality in England and Holland for both sexes.

nations, classes, and sexes. Thus the stomach accounts for only 22 per cent. of male deaths from cancer in England compared with 42 per cent. in America, 55 per cent. in Holland (fig. 6) and Bavaria, and 66 per cent. in Czecho-Slovakia, and cancer of the stomach occurs much more frequently in the lower social classes in England than in the well-to-do, whereas the incidence for the colon and rectum is the same for all classes (Stevenson, 1927) (fig. 7). These differences are almost certainly due to the third factor (extrinsic irritation) rather than the second (constitutional organ inferiority). The national differences are probably the result of different dietetic habits and differences in dental hygiene, a subject which is at present being jointly investigated by a group of investigators from Guy's Hospital and from Amsterdam*. The class

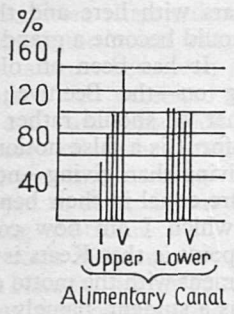


FIG. 7.

Social distribution of mortality from cancer in males at various sites. Five social groups (I to V), in descending scale, are shown, and the mortality in each of them is expressed as a percentage of the mortality from cancer at the same site (Stevenson).

differences are doubtless due to defective alimentary hygiene among the poor, the most important probably being septic teeth and lack of an adequate number of teeth for efficient mastication, coarser and less well cooked food and stronger tobacco.

Though the total incidence of cancer is the same in males and females, the stomach accounts for only 16·6 per cent. of the females compared with 22·2 of the males who develop cancer. This is presumably due to the death from cancer of the breast and uterus in 6 per cent. of women who would otherwise have developed cancer of the stomach and not to any difference in the liability of the stomach to become malignant (fig. 6).

I have long believed that cancer never develops in a healthy stomach. In about 25 per cent. of cases the malignant degeneration occurs in a simple ulcer and in the remainder it occurs in a chronically inflamed mucous membrane, the former being almost always associated with the presence of free hydrochloric acid and the latter generally with achlorhydria, though the free acid and the achlorhydria have, *per se*, nothing to do with it. It is the association of the constitutional tendency to cancer with that form of the hypersthenic gastric constitution which predisposes to gastric ulcer on the one hand and with constitutional hypochlorhydria which predisposes to achlorhydric gastritis on the other, together with local irritation, which results in cancer of the stomach. These views fit in well with statistics of cancer of the stomach. 16 per cent. of people over the age of 40 die from cancer and, in England, 3.2 per cent. of cancer of the stomach. About 5 per cent. of the population over 40 die with signs of active or healed gastric ulcer (4.3 per cent.) or ulcer-cancer (0.7 per cent.), and about 15 per cent. of people over 40 have chronic gastritis with achlorhydria. As the incidence of cancer is uniform throughout the population, 16 per cent. of individuals with chronic duodenal ulcer, chronic gastric ulcer and achlorhydric gastritis will develop cancer. Whereas those with chronic duodenal ulcer will develop it in some organ other than the duodenum, which is protected from irritation by the pyloric sphincter and is consequently hardly ever attacked by cancer, the presence of the chronic gastric ulcer or chronic gastritis in the other cases will make the stomach its most likely site. This agrees with Stewart's statistics that 16 per cent. of cases of gastric ulcer become malignant and gives an incidence in people over 40 of 16 per cent. of 5 per cent.= 0·8 per cent. who develop ulcer-cancer with free hydrochloric acid; and 16 per cent. of 15 per cent. who develop gastritis-cancer (achlorhydric)=2·4 per cent. The total incidence is 0·8+2·4=3·2 per cent. and the proportion with free acid to achlorhydria or extreme hypochlorhydria is 1 to 3.

At present we have no knowledge of how the cancer constitution can be controlled, but it should be possible to prevent the development of cancer of the stomach by preventing the development of chronic gastric ulcer and chronic achlorhydric gastritis in those predisposed by their gastric constitution, or, when this fails, recognising and curing them at as early a stage as possible and taking prophylactic measures to prevent their recurrence. Prophylaxis consists in removing the various exciting causes of gastritis which I have already described; trivial as they may appear to be, they are none the less of supreme importance.

*An account of these investigations will be published in the July number of the *Guy's Hospital Reports*

Some Examples of the Knowledge of Medicine Exhibited in the Poems of John Keats

By E. W. Goodall, Esq., O.B.E., M.D.

IT is interesting for the reader of the works of any particular writer to note whether the author reveals in them, involuntarily as it were, any evidence of his special profession or avocation. John Keats's guardian, Mr. Abbey, intended him for a surgeon, and Keats studied medicine and surgery for about five years before he passed his qualifying examination at Apothecaries' Hall on July 25th, 1816. This period began towards the end of the summer of 1811, when, before he was sixteen, he was apprenticed to Mr. Hammond, at Edmonton, with whom he continued a little over four years. The last seven to eight months of the period he spent in the medical and surgical practice of Guy's Hospital, where also he attended lectures given by the staff. During that time he lived in the Borough.

The first dated poem by Keats, as stated in his published works, is the ode " To Hope," February, 1815 ; though, according to Lord Houghton, on the authority of Keats's most intimate friend, Charles Armitage Brown, the earliest known composition of the poet is the " Imitation of Spenser," which was written probably about 1813. The earliest published letter was written from 8, Dean Street, Borough, at the end of 1815 or beginning of 1816. It may, therefore, be confidently stated that Keats's published writings can, with one possible exception, be assigned to a period which began when he had been studying medicine for about three and a half years.

Now any person, whatever his calling in life, if he writes many letters to his relatives and friends can hardly fail to mention his professional or occupational activities, and Keats, who was a frequent letter-writer, is no exception to the rule. His letters abound with references to his profession, which, though they have been vaulable to his biographers, have no special interest here, save two which may be excepted on account of their curiosity.

The first which occurs is a letter written, while he was at Dumfries, on July 2nd, 1818, to his sister Fanny. He tells her of " one Richard Bradshaw, a notorious tippler," whom he had met on his walk: " he stood in the shape of a ℨ and balanced himself as well as he could," a simile which would hardly occur to one who had not learnt to write or read a prescription. Keats may in his student days have amused his little sister with pleasantries about pharmacological signs and symbols, she would not otherwise have understood the allusion.

The other reference is not strictly professional, but it should be of interest to Guy's men. Indeed, its inwardness would, I think, be hardly appreciated by other than a Guy's man. In a letter to John Hamilton Reynolds, post-marked February 19th, 1818, Keats discusses what in his opinion should be the real intercommunion of men's minds and its results, and goes on : " and thus . . . every human [being] might become great, and Humanity, instead of being a wide heath of Furze and Briars with here and there a remote Oak or Pine, would become a grand democracy of Forest Trees ! It has been an old comparison for our urging on—the Beehive ; however, it seems to me that we should rather be the flower than the Bee—for it is a false notion that more is gained by receiving than giving—no, the receiver and the giver are equal in their benefits." From the aspect in which I am now considering the quotation, the point is that Keats is here showing a total disagreement with the motto of the hospital at which he was a student, namely, " Dare quam accipere." Whether he knew that this was the motto of the hospital I am not aware, but he might have known, for it was in use long before he went to Guy's. Mr. Eason has been kind enough to inform me that " Dare quam accipere " was the original motto and was granted together with the arms, crest and supporters when the hospital was incorporated by Act of Parliament in 1725.

Because a writer makes use of anatomical, physiological or medical allusions, similes and metaphors, it does not follow that he is an anatomist, physiologist or medical practitioner. We may not draw the inference that St. Paul was a physician because he advised Timothy to take a little wine for his stomach's sake. Dryden in the " Annus Mirabilis " (1666) writes that trade, " like blood, should circularly flow," a line which may be taken to show that he was acquainted with Harvey's discovery, but not necessarily that he had studied physiology. Fever with its phases is a frequent source of simile and metaphor with poets. Coleridge, in his lines " The Destiny of Nations " denounces ague as " a biform hag," evidently referring to its hot and cold fits. But allusions such as these may be made, and have often been made, by informed and observant

non-professional writers. These are, however, facts of which even the closest of lay observers would be ignorant unless he had made special inquiry, but of which the physician-poet might quite naturally make use, mostly in the way of simile or metaphor. While there are many medical references in Keats's letters, there are comparatively few in his poems. But amongst those few are some which show that his knowledge of things medical was more than superficial, and could have been derived only from a special training.

The two most obvious of the passages to which I am about to refer are (1) the line in the last stanza of " The Eve of St. Agnes," in which the poet states that :—

" Angela the old
Died palsy-twitched with meagre face deform ; "

and (2) in stanza LXX of " The Cap and Bells," in which the Magician Hum is described as being, after having drunk too much wine, " glutted like a leech." Keats must have seen many a case of cerebral disease which exhibited the facial signs he describes, and have persuaded from the skins of patients scores of leeches gorged with blood. His familiarity with bleeding by the means usually employed in those days is further attested by the following quotations :—

(3) In the " Ode to Fanny, I " :—

" Physician Nature ! let my spirit blood !
O ease my heart of verse and let me rest " ;

and (4), a reference which is not so obvious, in " Endymion," IV, 667 :—

" One gentle squeeze,
Warm as a dove's nest among summer trees,
And warm with dew at ooze from living blood ! "

The nature of this dew must have puzzled many a reader of " Endymion." My interpretation is that Keats had in his mind the serum which separates from the clot when blood is allowed to stand after venesection. It would have been his duty on many occasions to take particular notice of its appearance. But the line, however it is interpreted, is obscure, Indeed, either the idea in these lines is not accurately thought out, or its expression is slip-shod. The squeeze, we are told, is warm *as* a dove's nest and *with* dew (from blood). The reader expects *as* dew, a reading which would make some sort of sense. But the line is one of those to be found in Keats's early poems, in which sense is sacrificed to sound.

(5) In " The Fall of Hyperion," Canto I, 221, occurs the following :—

" The scenes
Still swooning vivid through my globed brain."

The epithet " globed " as applied to the brain puzzled Mr. D. W. Rennie (see his essay, " Keats's Epithets," in " Essays and Studies by Members of the English Association, Vol. III, 1912, p. 92). But may not it have been suggested by the actual appearance of the brain and cerebellum, when removed from the skull, and the anatomical terms used of those organs ? The words " hemisphere " and " lobe " employed in the description of the brain would have been quite familiar to Keats, and either of them might have suggested the word " globe " or " hemisphere " in connection with the terrestrial globe and " lobe " by its sound. " Globed " is applied by Keats in another passage to peonies (" Ode to Melancholy," II, 7).

(6 and 7) In " Otho the Great," Act III, Scene II, the aged abbot, Ethelbert, addresses the Emperor Otho in these words :—

" A young man's heart, by Heaven's blessing is
A wide world, where a thousand new-born hopes
Empurple fresh the melancholy blood :
But the old man's is narrow, tenantless
Of hopes, and stuff'd with many memories,
Which, being pleasant, ease the heavy pulse—
Painful, clog up and stagnate."

There are two medical reminiscences in these seven lines. None but a medical man would employ the adjective " melancholy " in the sense here meant, " infused with black bile," a survival of the ancient humoral pathology, which had not quite been discarded in Keats's time. Keats knew no Greek, but it is possible that he had read the whole of Burton's " Anatomy of Melancholy." He possessed an odd volume of that work which contained all after Partition I, and had made notes on the margins of some of the pages. He may, therefore, have got his ideas on melancholy and the original meaning of the word from Burton, who states that the humour, melancholy, acts as " a bridle to the other two hot humors, Bloud and Choler, preserving them in the Bloud and nourishing them in the bones. These four humors [Bloud, Pituita or Phlegm, Choler and Melancholy] have some analogy with the four elements, and to the four ages in man." (" Anatomy of Melancholy," Part I, Section I, Mem. 6, ii, Subject 2.)

In the last three lines of the passage quoted above an idea can be recognised which is prompted by a knowledge of the pathology of arterial obliteration and thrombosis. There is a note on this pathological condition in the notes on Lecture 4 in Keats's anatomical and physiological note-book (published in 1934, edited by Mr. Buxton Forman).

(8) In the same tragedy (" Otho the Great ") Prince Ludolph, addressing the youthful Prince Gersa, contrasts him with the old abbot, Ethelbert, whom Ludolph detests :—

" Gersa, you are young
As I am ; let me observe you face to face ;
Not grey-brow'd like the poisonous Ethelbert,
No rheumed eyes, no furrowing of age,
No wrinkles where all vices nestle in
Like crannied vermin."

" Crannied vermin "—can there be a more apt simile or a more succinct description of lice hiding in the wrinkles and creases of the skin which must have been a familiar sight amongst the poor of Southwark and the patients at Guy's in those days ?

(9) My last reference is to " Endymion," IV, 537. The poet describes the Cave of Quietude, into which Endymion has been wafted on a winged horse, as a—

" Happy gloom !
Dark Paradise ! where pale becomes the
bloom of health by due."

Mr. H. Buxton Forman has pointed out that in the original draft of the poem the curious expression " Of health by due " is represented by the words, " The rightful tinge of health." Keats had noticed or been taught that persons who live for long in a place from which the rays of the sun have been excluded become pale. Poor Keats ! He was a sick man during the last few years of his short life and several of his relatives and friends were constantly ill ; to him the mere pallor engendered by darkness was a state of health for those who lived therein, and not a departure therefrom.

(The quotations given above are taken from Mr. Buxton Forman's edition of Keats's poems and letters, published in five volumes in 1900-1901.)

Correspondence

The R.A.M.C.

To the Editor of the GAZETTE

SIR—The problem of " What to do next ? " when the effects of qualifying are fully recovered from is one which strikes the youthful heart with considerable dismay and not a little astonishment. During six or seven years of a happy schizophrenic life spent within the sheltered walls of Guy's, one is apt to be brought suddenly to one's senses with an unpleasant jar to realise one is no longer a " stoodent " in the Borough sense, but now a person of some responsibility in the world. " What now ? " is the inevitable problem which must be very carefully considered and inwardly digested. A definite plan must be decided upon and the objective gained as speedily as possible.

I am not referring to men of outstanding ability in some particular branch and whose course is more or less mapped out for them, but of the average fellow who hasn't really made up his mind what he is aiming for as yet, till he has had more experience outside. The usual plan is to hunt up hospital advertisements for the job offering most money or renown, and trust to luck in getting one. This practice of wandering from hospital to hospital goes on for, perhaps, five or six years, and one is liable to slip into a rut. However, this can't go on for ever, and once more the unfortunate man is brought up with a jerk and the problem of the next move may loom bigger than ever, unless he has spent his time very wisely while wandering round the hospitals and has obtained a higher or specialist qualification.

There is the prospect of a partnership with all its pitfalls, or of building up a practice if he does not acquire one. He may even at this stage begin to think of the Services, and, if he is not too old and he *does* join, then he'll be cursing himself afterwards for not having done so earlier. He will find himself junior to people younger than himself. This is where I think I can give a little useful advice, though I have not been in the Service long. By virtue of missing one trooping season and therefore staying a little longer than usual in England before embarkation, I saw and experienced a number of phases of life as an Army doctor.

I say that quite sincerely I have not once regretted joining the R.A.M.C., and I shall try to give a few details of the Service. On joining up one begins the course at the R.A.M. College, Millbank. Whoever thinks that there is no work in the Army will be quickly disillusioned by this first introduction. The course starts off with suspicious simplicity, but the ground covered in two months is enormous. It is the finest revision course obtainable, combined with a thorough grounding in laboratory methods in pathology, bacteriology and entomology. Lectures in tropical medicine, which is apt to be passed over lightly in one's ordinary studies, are a model of clarity and conciseness, and after doing the course in hygiene and public health one feels a fully qualified sanitary inspector. It is not just reading

and being lectured to, but also sound practical instruction by excursions to waterworks, conservancy disposal works, a big United Services distributing centre and an extensive course of meat inspection, including visits to the Metropolitan slaughter-houses. A very interesting introduction into entomology is given, and a more exact knowledge of such animals as fleas, bugs, lice, mosquitoes and flies conduces to a more sympathetic and understanding outlook towards these humble and ubiquitous creatures. Altogether it is a most stimulating course, and provides that very necessary fillip to dispel the post-qualification torpor.

This course is followed by a month's intensive training at the Depot, Crookham, and this is not written to strike terror into the hearts of asthenic future medical practitioners. The course is anything but rigorous in the old-fashioned sergeant-major idea. Exercise and drills in the Army have long since been placed on a sound scientific basis involving the maximum degree of efficiency with the minimum amount of discomfort from fatigue. You are gently led by the excellence of the persuasive sergeants specially selected to smarten slovenly students. I think it was probably one of the happiest months of my life, for everything was new; new friends were met, whose careers will henceforth be followed with interest because they belong to a big brotherhood whose activities are portrayed in the *London Gazette*, the Army List, Orders and various other official publications. It can be imagined what benefits accrue from a healthy open-air life in the clean Hampshire air after the atmosphere of the Borough. And there is the riding—galloping across the open spaces round Aldershot and Farnborough. The only regret is that the course does not extend over three months, as it did formerly. At the finish work begins in real earnest.

The work is very varied and interesting. All branches of the science are experienced, from sanitary inspection to high-class surgery. There is no lack of pure medicine or opportunities for specialising. Ear, Nose and Throats, Ophthalmology, Medical Specialist in a big hospital, Bacteriology —all aspects of the medical sciences are covered and far more opportunities are offered than in civil life. The Army has its own specialist examinations and qualifications, though civilian degrees are naturally respected and encouraged. If a man is any good he can get study leave for a higher civil qualification, meantime receiving his full Army pay. Medicine in the Army covers wider fields than in civil life. Every soldier's medical history is carefully recorded, and the development of pathological states can be effectively followed up. There are also abundant opportunities of studying the comparatively healthy individual who has come up for examination—not because he is complaining, but because he has to report every now and again. Diseases are observed and recorded at their very earliest appearance. This is a branch of medicine but little studied in civil life, simply because, except in the case of examination for life insurance societies and other concerns, normal individuals do not go to a doctor for a routine examination. There are plenty of opportunities of studying pukka diseases, too—and far more in the way of shouting text-book cases in a place like India than is common at home.

As for the pay—it is good. No one becomes very wealthy in the R.A.M.C., but, on the other hand, all are comfortably off. A young man starts off straight away as a full lieutenant with over £365 a year, after all taxes are deducted, and in a year becomes a captain with a corresponding rise in pay. Then there is the question of service abroad. This surely is the most attractive part of an army career. "Join the Army and see the World." But scanty knowledge of a country can be gained as a ship's surgeon. Far better to be living in one for some time where study of the peoples, flora and fauna, can be carried out at leisure and provide a fount of endless interest. Surely it is better for the young budding practitioner to spend the first five years of his qualified life gaining medical experience in foreign countries, and not only widen his scientific knowledge but also broaden his outlook on life generally, and providing in later life a source of pleasurable recollections when, sitting by the fireside or playing bridge at a spa, he will be able to give his moustache a fierce twirl and snort violently: "When I was in Poon-ah in fortay——!"

And at the end of this five years he is assured of a gratuity of £1,000.

Yours, etc.,
ROLAND S. VINE,
Captain, R.A.M.C.

Haig Barracks,
Malappuram,
Malabar, S. India.

Guy's Hospital Gazette

The Editor will, at all times be glad to consider articles or sketches, provided that they are accompanied by the writer's name and address, not necessarily for publication. Authors who desire reprints of their papers should make their own arrangements with the Printers when they return their proofs. All contributions to be addressed to *The Editor*, who does not accept responsibility for the views expressed by contributors.

Reviews

Private Nursing. By MARIANNE WENDEN. Published by Messrs. Faber & Faber. *Price 6s.*

MISS WENDEN is to be congratulated on producing this valuable little book. Considering that probably fifty per cent. of trained nurses are engaged in some kind of private nursing, this book supplies a long-felt need. It is particularly gratifying to Guy's nurses that this has been done by a Guy's nurse. Useful information is given concerning the different channels of employment. The different types of Co-operations and Nursing Associations are described to help the nurse to choose that best suited to her individual needs, and in the chapter dealing with Income and Expenditure she will obtain a good idea of the financial side of private nursing.

Much helpful information is given on the relationship between the nurse and her patient and the relations in a private house, helping a nurse to deal with situations that she has not met in a general hospital. There is a useful section on Diets and sick-room cookery and urine testing.

The book can be thoroughly recommended to all private nurses and those who anticipate taking up this branch of work.

Lectures to Nurses. By MARGARET S. RIDDELL, A.R.R.C., S.R.N. Published by Messrs. Faber & Faber. *Price 6s.*

THIS book has now reached its sixth edition and is still a popular and useful book for the nurse in training. The matter is clearly arranged and the nursing points kept well to the fore. It is impossible to include much detail in a book of this size, which endeavours to cover the syllabus of the General Nursing Council, and nurses will need to supplement from more detailed text-books.

In the first-aid treatment of burns, nurses are usually taught to avoid oily dressings because of the subsequent tannic acid treatment. The author states that oxygen is rarely given by means of a funnel now, but the illustration shows this. The statement that a window is cut in a plaster where there is a wound to be dressed may confuse nurses who have had experience of Winnett Orr's treatment. Nurses are taught to be scrupulously clean when giving nasal feeds, but the necessity for surgical cleanliness is questionable.

The book is easily read and should be helpful to a nurse, particularly in the early part of her training.

Text-book for Nurses. By GROVES & BRICKDALE. Revised by J. A. NIXON. Published by the Oxford University Press. *Price 20s.*

THIS excellent text-book is rightly very popular with nurses, and is now in its fifth edition. Its 670 pages give splendid value, and nurses in training feel it is worth spending the money to have the essential subjects for the State Examinations in one volume. In addition to the sections on Anatomy, Physiology, Hygiene and Dietetics, a clear account is given of all the medical and surgical conditions with which a nurse may come in contact.

The book is attractively written, and all nurses who take their work seriously should buy it early in their training in order to make good use of it. Perhaps its chief attraction is the splendid selection of diagrams and illustrations.

Sport

United Hospitals Athletic Sports

THE United Hospital Annual Sports were concluded on Wednesday, May 20th, at the Duke of York's Headquarters, Sloane Square, and resulted in an overwhelming win for Guy's with a score of 45 points. St. Mary's were second with 29 points, and Bart.'s and St. Thomas's equal third with 28 points each.

The main excitement lay in the struggle for second place, for, with the relay race to come, Bart.'s and St. Thomas's had a small lead over St. Mary's. However, over the first stage of the relay Lovelock gave the last-named a lead of more than twenty yards and, although in the next three stages this lead was reduced by Guy's team, St. Mary's won, thus beating Bart.'s and St. Thomas's by a single point for second place in the Challenge Shield Competition.

E. I. Davis won three events. First he won the 100 yards against a strong wind in 10.4 seconds, contenting himself with a five yards' lead. Later he and R. W. Harvey easily led the field in the 220 yards. After a rest he won the long jump. For these activities he was awarded the British Medical Association Cup for the best all-round performance, while the Princess Marie Louise

Cup for the best performance of the day went to A. R. P. Ellis (Bart.'s) and A. J. Martin (St. Thomas's), who set up new records in the Javelin and Shot respectively.

Douglas again proved his superiority by winning the half-mile without effort.

The quarter-mile was perhaps one of the most exciting races seen at these sports for some time. F. R. Park, of London Hospital, was expected to win, but as the runners entered the finishing straight Palmer, of King's, was a little in front of O'Gorman of Guy's, with Park a yard behind. After a terrific struggle, O'Gorman gained on Palmer inch by inch, and finally the two broke the tape in a popular dead-heat.

While mentioning these particular successes, it must not be forgotten that the victory of Guy's was due to the fact that almost every member of the team scored points for his side. Thus Morey, while short of training, gained fourth place in the 100 yards, as did Brown, Wilcox and Etheridge in the weight-putting, pole-vault and half-mile respectively. Etheridge, too, was third in the mile, while Revell and P. Harvey scored in the high and long jump.

Mention must be made, too, of the tug-of-war team. Hastily formed a week before with very little training, they did well to enter the final round against St. Thomas's. Whilst obviously stronger than their opponents, they lacked their precision and cohesion. There is no doubt that, with more training, they will be very formidable at the 96-stone limit.

RESULTS

100 *Yards.*—E. I. Davis (Guy's) 1; H. J. Keigwin (St. Mary's), 2; A. I. Ward (Bart.'s), 3; L. G. Morey (Guy's), 4. Time, 10.4 sec.

High Jump.—J. O. Fielding (St. Thomas's), 5 ft. 3½ in., 1; D. S. Morris (Bart.'s), 5 ft. 1½ in., 2 (after jump-off); L. C. B. Revell (Guy's), 5 ft. 1½ in., 3.

Half-Mile.—D. M. Douglas (Guy's), 1; A. Watts (Westminster), 2; A. W. Frankland (St. Mary's), 3; A. E. J. Etheridge (Guy's), 4. Time, 2 min. 4-2/5 sec.

220 *Yards.*—E. I. Davis (Guy's), 1; R. W. Harvey (Guy's), 2; H. J. Keigwin (St. Mary's), 3. Time, 22.8 sec.

440 *Yards.*—G. O'Gorman (Guy's) and R. A. Palmer (King's), dead heat; F. R. Park (London), 3. Time, 52½ sec.

Long Jump.—E. I. Davis (Guy's), 21 ft. 4½ in., 1; A. I. Ward (Bart.'s), 20 ft. 10 in., 2; P. Harvey (Guy's), 20 ft. 3 in., 3.

120 *Yards Hurdles.*—P. H. Garrard (Middlesex), 1; E. R. Keyworth (St. Mary's), 2; J. O. Fielding (St. Thomas's), 3. Time, 16.4 sec.

Putting the Weight.—A. J. Martin (St. Thomas's), 41 ft. 9½ in. (record), 1; B. L. Prendergast (St. Mary's), 40 ft. 6½ in., 2; C. J. Hodson (St. Mary's), 35 ft. 9 in., 3; A. G. T. Brown (Guy's), 33 ft. 8½ in., 4.

440 *Yards Hurdles.*—R. T. Norman (St. Thomas's) 1; K. N. Lloyd (London), 2; R. A. Palmer (King's), 3.

Pole Vault.—N. P. Shields (Bart.'s), 10 ft., 1; A. Davis (St. Thomas's), 8 ft. 6 in., 2; C. M. Squire (St. Mary's), 8 ft., 3; D. R. C. Wilcox (Guy's), 7 ft. 9 in., 4.

One Mile.—J. E. Lovelock (St. Mary's), 1; C. I. Murphie (King's), 2; A. E. J. Etheridge (Guy's), 3.

Three Miles.—C. I. Murphie (King's), 1; A. E. J. Etheridge (Guy's), 2. Time, 15 min. 47 sec.

Throwing the Javelin.—A. R. P. Ellis (Bart.'s), 161 ft. 6¼ in. (record), 1; G. M. Dransfield (Bart.'s), 141 ft., 2; S. Ras (St. Mary's), 140 ft. 2 in., 3.

Tug-of-War.—St. Thomas's beat Guy's, 2—0. (Guy's.—Wood, Dick, Cushing, Wilson, Norman, Clarke, Smit and Drew.)

One Mile Medley Relay.—St. Mary's (J. E. Lovelock, H. J. Keigwin, C. N. Gosse and D. S. Foster), 1; Guy's (D. M. Douglas, L. G. Morey, R. W. Harvey and A. G. T. Brown), 2; Bart.'s, 3.

Inter-Hospital Shield (Scoring—1st, 5 points; 2nd, 3 points; 3rd, 2 points; 4th, 1 point).

Guy's Hospital (holders), 45 points.

St. Mary's, 29 points.

Bart.'s and St. Thomas's, each 28 points.

King's, 15; London, 8; Middlesex, 5; Westminster, 3 points.

London University Sports

AT the twenty-sixth Annual Championship of the University of London held at Motspur Park on May 9th, King's College won the Rosebery Cup with 33 points and Guy's were second with 26 points.

Although the athletic season of the Hospital team is short, these championships have in the past been considered as a try-out before the Inter-Hospitals Sports, but this year an effort was made to enter a full team. But for the absence of Yerbury and Young, due to injuries, and the fact

that points won in the cross-country race, in which Guy's did not compete, are included in the total, Guy's would certainly have won the Cup. However, the team gave a commendable performance, which augurs well for the future.

Of the newer members of the Club, P. Harvey, Douglas and O'Gorman showed outstanding ability. Harvey, though inconsistent, is certain of clearing over 21 feet in the long jump when he does manage to hit the take-off board, and he won this event easily. Douglas came into the front rank of half-milers by winning this race with over thirty yards to spare and nobody to push him, returning the good time of 2 minutes 2.4 seconds. As he is not yet twenty, it is to be hoped that he will not be tempted to enter into too much competition for a year or two. In the quarter-mile, O'Gorman won both his heats, returning the fastest time of the day in doing so, but seemed tired in the final, in which he came third.

E. I. Davis, after a year's absence from the track, showed that he has lost none of his speed by winning both the sprints. In the hundred yards the chief opposition lay in the Frenchman, P. M. F. Dondelinger, of Imperial College, who has a great reputation in his own country. Although seemingly slow out of his starting holes Davis led at thirty yards, was even with the Frenchman at fifty, was inches behind at seventy, but finally, with no loss of style, broke the tape inches only in the lead. The time, 10.4 seconds against the wind, is equivalent to at least 1/5 second less under more favourable conditions. In the 220 yards, Davis gained a lead of four yards at the half distance and increased it striding easily. R. W. Harvey was fourth in this event. Incidentally, in the preliminary rounds the latter returned the fastest time.

In the other events, Etheridge was out of form in the three miles, in which he secured third place. Taylor was fourth in the mile, as was Brown in the javelin-throwing, and Revell was equal third in the high jump.

Cricket

Guy's v. Queen Mary's College

GUY'S gained a comfortable victory over Queen Mary's College by six wickets. G. M. A. Brown won the toss and put Queen Mary's College in to bat on a softish wicket.

Very little resistance was offered to some steady bowling, with the exception of Duane, who scored a hard-hitting 62 out of a total of 116.

Guy's lost two wickets quickly, but G. M. A. Brown was in irresistible mood, scoring 80 before getting run out. The fourth wicket fell at 115, but J. A. L. Leeming and L. G. Morey played out time, the final score being 156 for four wickets.

Scores.—Queen Mary's College, 116 (Duane, 62).

Guy's.

G. M. A. Brown, run out	80
T. D. Ridsdale, l.b.w., b. Parry	11
G. O'Gorman, b. O'Connor	2
P. H. Birks, c. Lipfriend, b. Parry	12
J. A. L. Leeming, not out	24
L. G. Morey, not out	16
Extras	11
Total for 4 wickets	156

A. D. Willis, H. D. Foster, T. J. M. Lowry, F. W. Rushby and W. Wylde did not bat.

Guy's v. Norwood C.C.

GUY'S beat Norwood on Saturday, May 16th, by 169 runs. G. M. A. Brown won the toss and decided to bat. After putting on 60 runs for the first wicket with G. M. A. Brown, G. O'Gorman was bowled for 34. J. A. L. Leeming then carried on the good work, making 37, and Brown showed excellent form in scoring 92.

L. G. Morey then came in and knocked up 40 runs in quick time, G. M. A. Brown declaring at 5.10 with the score 224 for 5 wickets.

On resuming, Norwood were soon in trouble, and eventually were all out for 55.

R. M. de Gregory was the most successful bowler, taking 3 wickets for 13.

Guy's v. Chelmsford

THE match between Guy's and Chelmsford on Wednesday, 20th May, ended in a draw. Guy's won the toss, and on batting compiled a total of 158, G. M. A. Brown making a useful 34, and T. S. M. Lowry and R. M. de Gregory adding 50 for the sixth wicket, scoring 31 and 27 respectively. The two Essex cricketers, Ray Smith and Boswell, bowled well for Chelmsford, Boswell taking 8 wickets for 49.

Chelmsford on batting found runs very difficult to get from very steady bowling by W. Wylde and R. M. de Gregory, Wylde eventually taking 5 wickets for 21. Chelmsford were unable to get the runs, and at close of play had scored 107 for 8 wickets.

Guy's v. Norbury

GUY'S defeated Norbury at Honor Oak Park on Saturday, May 23rd, by six wickets.

Norbury batted first, and at 5 o'clock were all out for a score of 161. This left Guy's two hours to score 161.

G. M. A. Brown and T. D. Ridsdale opened, but Ridsdale was soon out. Brown and J. A. L. Leeming then took the score to 75, when Leeming was bowled for 25. Brown was out soon afterwards, having played very well in scoring 62.

L. G. Morey and T. J. M. Lowry had to score 60 runs in 35 minutes, which task they managed to perform with five minutes to spare, Morey making 32 not out, and Lowry 26.

Guy's v. Private Banks

GUY'S played a drawn game with the Private Banks at Catford Bridge. The Banks batted first, and declared with the total 164 for 6 wickets, J. G. Richards and P. R. S. Hayles scoring 66 and 47 respectively.

When Guy's commenced their innings, P. H. Birks was the only batsman to show good form, scoring 58 not out. He was ably backed up by H. Jones-Lewis, who scored 27 not out. Guy's, however, were unable to get the runs, and stumps were drawn with the score 123 for 4 wickets.

Guy's v. St. Ann's

GUY'S obtained an easy victory over St. Ann's, Virginia Water, by 8 wickets. G. M. A. Brown won the toss and put St. Ann's in to bat. The innings closed at 3 o'clock for 124 runs.

Guy's on batting found runs easy to get, and passed their opponents' score with 8 wickets in hand.

The score eventually reached 208 for 3, T. D. Ridsdale making 53 and J. A. L. Leeming hitting a dashing 78 was undefeated at the close.

Golf

Guy's v. Kingswood G.C.

ON Wednesday, May 20th, Guy's were entertained by Kingswood Golf Club; a very enjoyable evening was spent, and the match resulted in a win for Guy's, $2\frac{1}{2}$—$1\frac{1}{2}$.

The results are as follows :—

Guy's		*Kingswood*	
B. C. M. Reed, A. E. Parrott	$\frac{1}{2}$	R. W. Norman, G. H. Lunge	$\frac{1}{2}$
P. Spooner, S. M. Whitteridge	1	C. Appelby, G. D. Gooch	0
S. McCullim, P. Jeffrey	1	H. V. Mabey, R. E. Merton	0
P. Wilson, C. C. Kennedy	0	J. E. Gibson, A. N. Other	1
Total	$2\frac{1}{2}$		$1\frac{1}{2}$

Guy's v. H.O.P.

Played on Wednesday, May 27th.

Guy's		*H.O.P.*	
B. C. M. Reed	0	K. O. Petty (3/2)	1
A. Jeffrey	0	C. H. Wass (3/2)	1
S. McCullim	0	A. Brimacombe (3/2)	1
P. Spooner (2/1)	1	W. Miller	0
S. M. Whitteridge	0	W. Somerville (6/4)	1
B. W. Roberts	0	E. O. Stephens (4/2)	1
H. D. Smith (2 up)	1	E. Greenwood	0
J. Dossor (1 up)	1	W. Sewell	0
Total	3	Total	5

Swimming Club

ALTHOUGH two of the best water-polo players have left the Hospital, the fortunate arrival of fresh material has strengthened the team, which, if not so strong individually as last year, shows much better combination. The swimming team promises to be a considerable improvement on the last few years.

The Club started the term well by defeating London Hospital and Royal Dental Hospital in the Inter-Hospitals Water-Polo League during the first week. We were successful in swimming matches against St. Paul's School and Brighton College. In the third match of the League we defeated University College Hospital.

The individual results were :—

Guy's *v.* London, 7—2.

Guy's *v.* Royal Dental Hospital, 7—0.

Guy's *v.* St. Paul's School, $21\frac{1}{2}$—$18\frac{1}{2}$; polo, 5—2.

Guy's *v.* Brighton College, 22—13; polo, 8—2.

Guy's *v.* University College Hospital, 8—1.

GUY'S v. ST. MARY'S HOSPITAL

ON Thursday, 28th May, we met St. Mary's Hospital in the water-polo league. Unfortunately, S. Vorster, who has been playing centre-forward in every match this year, was unable to turn out, and we were forced to play a substitute at the last moment.

We lost the toss and defended the shallow end. After three minutes' play J. Smit shot a very good goal, which gave the goalkeeper no chance. St. Mary's scored a minute later when J. Ferguson, who had been left unmarked, beat Crone with a very hard shot in the left-hand corner.

We returned to the attack and, after Weston and McCall were unfortunate with shots which hit the bar, A. Bacon scored. Immediately after the same player was ordered from the water for being in the two-yard area. One man short, we defended extremely well. Crone was outstanding, being called upon to save from all angles; he kept his goal intact till half-time, when we led 2—1.

In the second half the defence began to feel the strain of marking an extra player. They slowed considerably, and the passes up the bath were erratic. C. A. Young scored for St. Mary's, and Bacon was allowed back in the water. However, he was unable to hold T. G. Osler, who broke through in the centre on several occasions. Smit, who was very closely marked, received very little support, and although he made several openings, was unable to score.

Towards the close we cracked badly, and T. G. Osler, J. Ferguson and C. Young scored for St. Mary's. The final score was 6—2 in their favour. They thoroughly deserved the victory, because they were yards faster and made the most of their opportunities.

J. Crone, in the Guy's goal, played well throughout and did not have a chance with any of the goals.

Teams.—

Guy's.—J. S. Crone, A. Halamandres, A. M. McCall, K. Titford, T. L. Weston, A. Bacon, J. Smit (Capt.).

St. Mary's.—J. Kamill, R. Shaw (Capt.), K. Rogers, T. G. Osler, J. Charrett, C. A. Young, J. Ferguson.

Although having lost to St. Mary's, we still head the League.

	Played	*Lost*	*Won*	*Points*
Guy's	4	1	3	6
Bart.'s	2	0	2	4
St. Mary's	3	1	2	4

Hospital Information, etc.

Papers by Guy's Men

T. B. Layton. "Enlarged" tonsils. *Lancet*, 1936, 1, 1252.

W. H. Summerskill. Treatment of the amblyotic eye. *Brit. Med. Jour.*, 1936, i, 1101.

L. J. Witts. The prophylaxis and treatment of agranulocytosis. *Brit. Med. Jour.*, 1936, i, 1061.

G. B. Dowling. Poikilodermato-myositis (Petges). *Proc. Roy. Soc. Med.*, 1936, xxix, 714; Sect. Dermat.

Louis Forman. Toxic dermatitis—? Arsenical. *Proc. Roy. Soc. Med.*, 1936, xxix, 722; Sect. Dermat.

Maurice Sorsby. (1) Bilateral retro-auricular fistula, (2) Retro-auricular fistula. *Proc. Roy. Soc. Med.*, 1936, xxix, 833; Sect. Otology.

Appointments

L. F. Beccle, M.B., B.S.(Lond.), Coroner (full-time) to the Southern District of the County of Essex.

R. W. Cushing, T.D., promoted Lieut.-Colonel, R.A.M.C., T.A.

Changes of Address

Marcelli Shaw, 98, Harley Street, W.1. *Welbeck* 8486.

K. B. Alexander, Bowley Farm, near Lenham, Kent.

D. J. Wigginton, The Elms, High Road, Mottingham, S.E.9 (*Eltham* 1706), and 183, Lower Kennington Lane, S.E.11 (*Reliance* 1993).

Transference of Practice

Dr. K. B. Alexander has retired from his medical practice at Byfleet which has been taken over by his son, Dr. P. C. Alexander, B.M.(Oxon.), of Granville House, Byfleet.

Births

JAMES.—On April 16th, 1936, at 28, Green Lane, Thornton Heath, Surrey, to Jessie (née Blundell), wife of L. Elwin James, L.D.S.Eng.—a son.

GREENWOOD.—On May 25th, 1936, at 14, Star Hill, Rochester, to Dorothy Helen, wife of Eric J. Greenwood, F.R.C.S.—a daughter.

Engagement

The engagement is announced, and the marriage will shortly take place, between Dr. Aubrey R. Denton, elder son of Dr. and Mrs. George Denton, of Cowes, I.O.W., and Hazel Lucy Milsom, elder daughter of Major C. F. Milsom, D.S.O., and Mrs. Milsom, of Northam, N. Devon.

Marriage

McNEILL—FOX.—On March 20th, 1936, at St. Mary's, Letchworth, Joseph Cuthbert McNeill, Malone Road, Belfast, to Gertrude Hamlin Fox, Letchworth, Herts.

EDS. { P. W. C. / M. A. P.

GUY'S HOSPITAL GAZETTE

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PASSIM

THANK Heaven, the Dodont Bird is out and about again! Last fortnight we had heard no gossip, since the old monster was ill. You might think that, as a rule, we get our information from authoritative quarters (or you might not); indeed, sometimes with a great effort we are able to do so, but, more often than not, it is as difficult as getting blood from a relative. So we have come to rely on our old friend the Dodont, whom those who are really familiar with the Hospital nooks and crannies—especially the crannies—must sometimes have seen blinking its beady little eyes and polishing its scales in those dark regions where it makes its flights between committee rooms.

Years ago, when the Hospital was not afraid of progress, and the bird was younger, it was called the Dodo, but just as the smooth streptococci become rough, so has our old friend evolved. The first suggestion of this change was, the Dodont says, when the proposal, formulated before the war, to provide Dr. Cameron with a Children's Department of 80 cots was shelved and shelved again. The repeated shelving of this project induced in the bird an involutional melancholia. It has since had occasional remissions, once shortly after the war when it was proposed that the whole of the Evelina Hospital be adopted as a Children's Department, and once more recently, when it was mooted that the now disused Bright Ward be given over to pædiatrics. But in the meantime the poor old monster's depression has been deepening, and this last remission has ended in an acute exacerbation. For after some mooting it was decided that only half Bright was to be allowed to the children, and, though that was better than nothing, the new rumour that, as it said, "we are going to muddle along in the same old way," has brought the bird to tears. For our part, the Dodont has our every sympathy, if what it croaks is true. We have pointed out before that, by the brilliant work of our pædiatricians Dr. Cameron and Dr. Hampson, there has been built up a children's out-patient department which is larger than that of any other hospital in London, but that any use to which such great possibilities could be put has been repeatedly thwarted by the refusal to provide in-patient accommodation of anything approaching the necessary proportions, and the persistent neglect to increase a paucity of accommodation equalled, in all the hospitals in London, only by St. George's. And now that the opportunity has come of using Bright Ward, with its ample space, with its possibilities for the prevention of cross-infection, such as any department which pretends to pædiatrics should have, with its possibilities of a roof garden to replace that lawn of which the children have been deprived by the building of Nuffield House—now that this opportunity has come, it is, sobs the Dodont, to be thrown away. We are told that, for the sum of £5,000, a department at last adequate to the needs might have been provided. But, for reason of this £5,000, the Dodont whispered to us, the Governors of this Hospital, of which the annual expenditure is £250,000, have rebutted the project.

The old monster sustains itself with the hope that this has been done with foresight, since an annexation of the Evelina Hospital may be contemplated in the future. We hope it is not another example of the same foresight with which, on the same grounds, the Governors also shelved almost the same project over twenty years ago. This heart-breaking record of indecision is enough to reduce anyone to tears.

Dear old Guy's! Perhaps the best hospital in London thirty years ago; what is it now? Well, it is probably as good as it was then, but does it occupy anything like the same position of pre-eminence? Where others have expanded, often only in the hope of increased financial support, we have kept our overdraft under relative control. But we have lost heavily by our financial orthodoxy. What have we done in the last twenty years? We have founded a psychological department, asthma and nephritis clinic, and in the last few months the first purely endocrine clinic in Europe. The deep therapy department we owe, says the Dodont, only to the private enterprise of Dr. Watt. What else have we done? Is there anything that amounts to more than a row and a half of beans, except the building up of the great possibilities for pædiatric study. And of this are we to make any use at all? Apparently this great opportunity is to be neglected—so sobs the Dodont.

▭

In continuance of its policy of collaborating with other departments on all forms of hormonal disorder, the newly formed Endocrine Clinic is inaugurating an out-patient department for mastitis in collaboration with a surgical colleague. It is hoped that as many cases of this condition as possible will be referred on Tuesday afternoons to this section of the Endocrine Clinic.

The Cricket Club is to be congratulated on the enterprise of its officials in arranging the oncoming tour of the Channel Islands. Over the period of a week, from the 23rd of this month, fixtures are to be played against Jersey, Guernsey, the New Regiment and Victoria College. This is the first time that there has been a tour out of the country, and it is stimulating to find that there exists such travel enterprise outside the Rugby Football Club.

▭

We congratulate Mr. T. H. Shire on his outstanding achievement in winning the Treasurer's Prize and Medal in both Medicine and Surgery; Mr. F. I. Evans, late house-surgeon to Mr. Slesinger, on passing the final examination of the F.R.C.S., and Mr. Ellis-Brown, late house-surgeon to Mr. Thompson and Mr. Lambrinudi, on gaining distinction in Surgery in the London M.B.

▭

The latest attempt to introduce a civilised element into the College comes to us in the form of notepaper provided in the Reading Room. This introduction has been effected by the Students' Club, and will be continued so long as flagrant misuse of the provision does not occur. We welcome a long overdue reform, and thank the Students' Club Committee for its trouble both in this and the larger matters which it has lately spent much time considering.

▭

Injuries of the Brachial Plexus

A Clinical Lecture delivered at Guy's Hospital on 11th June, 1936, by Grant Massie, Esq., F.R.C.S.

GENTLEMEN,—In my last clinical lecture and in the one preceding that I dealt with certain of the more common injuries affecting the chief peripheral nerves of the upper limb. I propose to-day to turn to a consideration of injuries to the brachial plexus as a whole, and it is appropriate, I think, that we begin by considering the manner in which the plexus is formed, its connections and various subdivisions.

The plexus, you will recall, comprises roots, trunks, divisions, cords and branches. The roots and trunks, which are the parts with which we are chiefly concerned to-day, lie in the neck. The divisions lie behind and deep to the clavicle, while the cords and branches lie in the axilla. The *roots* are constituted by the anterior primary divisions of the 5th, 6th, 7th, 8th cervical and 1st thoracic nerves. The cervical roots lie deeply in the neck in the interval between the scalenus anterior and scalenus medius. The 1st thoracic root also lies deeply in the root of the neck, and passes laterally in a plane posterior to that of the 3rd part of the subclavian artery. I mention this point for the reason that the situation of these nerves is such as to render them inaccessible to the surgeon for such procedures as nerve suture.

The *trunks* of the plexus are three in number—upper, middle and lower—and they lie in the posterior triangle of the neck. The upper trunk is formed by the union of the 5th and 6th cervical roots, the middle trunk by the 7th cervical root, and the lower trunk by the union of the 8th cervical and 1st thoracic roots. Thereafter each trunk divides into an anterior and posterior division, and all the posterior divisions unite to form the posterior cord. The anterior divisions of the upper and middle trunks form the lateral cord, while the anterior division of the lower trunk forms the medial cord. The branches of the cords are as follows :—

Medial Cord.—
Medial head of the median nerve—C.8, T.1.
Medial anterior thoracic nerve—C.8, T.1.
Ulnar nerve—C.8, T.1.
Medial cutaneous nerve of the forearm—C.8, T.1.
Medial cutaneous nerve of the arm—T.1.

Lateral Cord.—
Lateral anterior thoracic nerve—C.5, 6, 7.
Lateral head of the median nerve—C.5, 6, 7.
Musculo-cutaneous nerve—C.5, 6, 7.

Posterior Cord.—
Radial nerve—C.5, 6, 7, 8, T.1.
Axillary nerve—C.5, 6.
Thoraco-dorsal nerve—C.6, 7, 8.
Subscapular nerves, upper and lower—C.5, 6.

In addition to these terminal branches of the plexus, there are four branches given off above the clavicle, two from the roots and two from the upper trunk. From the roots arise the long thoracic nerve (C.5, 6, 7), which supplies the serratus anterior, and the dorsalis scapulæ nerve (C.5), which supplies the rhomboid muscles. From the upper trunk arise the suprascapular nerve (C.5, 6) and the nerve to subclavius (C.5). As far as our present purpose is concerned, you may disregard the nerve to subclavius and the dorsal scapular nerve for the reason that the effect of their section or injury is not readily discernable by clinical examination. The long thoracic and suprascapular nerves on the other hand are of considerable diagnostic importance, as you will see later.

I think we are now in a position to proceed to a consideration of the various injuries which commonly affect the plexus and the disabilities to which they give rise, but before doing so I would draw your attention to one further point of anatomy, and that is the connection of the 1st thoracic nerve root to the cervical sympathetic chain. You may remember that the cervical sympathetic system sends grey rami communicans to all the cervical nerves, but receives no white rami from them. Its spinal fibres are derived from the white rami of the upper thoracic nerves, and in particular from the first, and having entered the corresponding ganglia of the thoracic chain, they pass upwards into the cervical sympathetic chain. In consequence of this, you will find that section of the 1st thoracic root is followed by partial paralysis of the cervical sympathetic system, which is in turn evidenced by :—

1. Ptosis, usually of mild degree, due to the fact that the cervical sympathetic partly innervates the levator palpebræ superioris.

2. Contraction of the pupil.

3. Enophthalmos, due to paralysis of the unstriped muscle of Müller, which lies in the floor of the orbit.

It is customary and useful to divide plexus injuries into three types :—

1. Upper arm.
2. Lower arm.
3. Total.

The damage inflicted upon the nerves varies both in degree and extent. In the less severe injuries there is merely a stretching of the nerve or a laceration of its sheath, in the more severe there is complete severance. The damage may, of course, be inflicted by penetrating wounds, but these are rarely met with and, as a rule, it is due to some form of traction violence, the upper limb being forced away from the side of the neck.

1. *The Upper Arm (Erb-Duchenne) Type* is most commonly seen at birth. It is also the most common type of plexus injury met with in adult life. In most of the adult cases which I have seen the injury has resulted from motor-bicycle accidents, the rider having been thrown violently against a tree or telegraph pole. In all of them the force of the impact has been received by the shoulder, and in most there has been a fracture of the clavicle. It is worthy of note, I think, that in many of these patients the nerve injury has escaped recognition for a considerable time. That this should have been the case is, no doubt, due to the fact that attention is often centred upon the bony injuries to the exclusion of all else. The injury usually affects the region of the junction of the 5th and 6th roots, which is known as Erb's point. As a rule it lies above the point at which the suprascapular nerve arises from the upper trunk. Less commonly, the 5th and 6th roots are damaged above their point of junction, in which case the greater part of the long thoracic nerve is affected, and the condition known as winged scapula is present.

In the typical case of complete division at Erb's point there ensues a paralysis of (1) the Deltoid, Supraspinatus, Infraspinatus, which are abductors and lateral rotators of the shoulder, and (2) Biceps and Brachio-radialis, which are flexors of the elbow. In addition to these changes, weakness is exhibited in the Teres Major, Pectoralis Major, Latissinius dorsi, and Subscapularis, which are adductors and medial rotators of the shoulder. There is also some impairment of the Pronator teres, Supinator, the flexors of the wrist, and the thenar muscles.

The clinical appearance is typical. The limb hangs limply by the side, the arm being medially rotated and the forearm pronated. The elbow is extended and the wrist and fingers moderately flexed. The patient is unable to abduct or

laterally rotate the arm at the shoulder, nor can he flex or supinate the forearm. In the cases of obstetrical palsy no loss of sensation occurs; in adult cases there may be some loss of sensation over the lower part of the deltoid, although this is not at all common.

2. *The Lower Arm (Klumpke) Type* is nearly always the result of birth injury and, as compared with the upper arm type, it occurs much less frequently. The injury affects the 8th cervical and 1st thoracic nerves rather than the lower trunk which they form, and in consequence of root injury to the 1st thoracic nerve there usually ensue the signs of sympathetic paralysis to which I have already referred. The motor loss is very similar to that sustained in division of the ulnar nerve, there being a paralysis of the intrinsic muscles of the hand and loss of sensation along

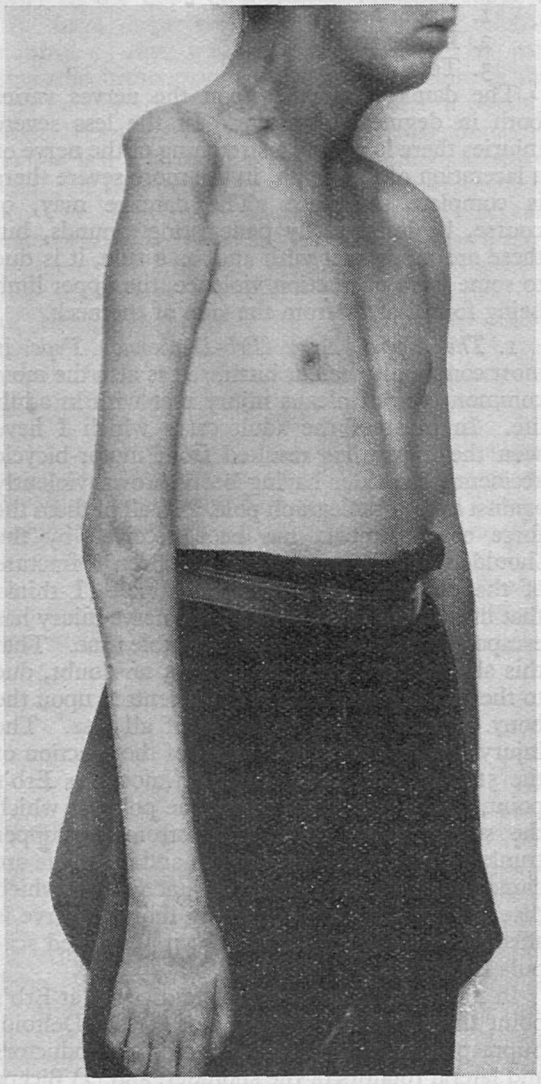

Fig. 1.

To illustrate the clinical appearances of the total-arm type of brachial plexus injury. The patient, a man *æt.* 26, met with a motor bicycle accident some two years before his admission to Guy's in September, 1934. During that time the brachial plexus had been explored, but it had been found impossible to identify the parts, so great was the scarring and fibrosis. Treatment by massage and various forms of physio-therapy had been most assiduously carried out, but no improvement had occurred. In view of this history amputation was advised, but the patient refused. Note the elevation and flattening of the shoulder and the ease with which the outline of the head of the humerus may be made out.

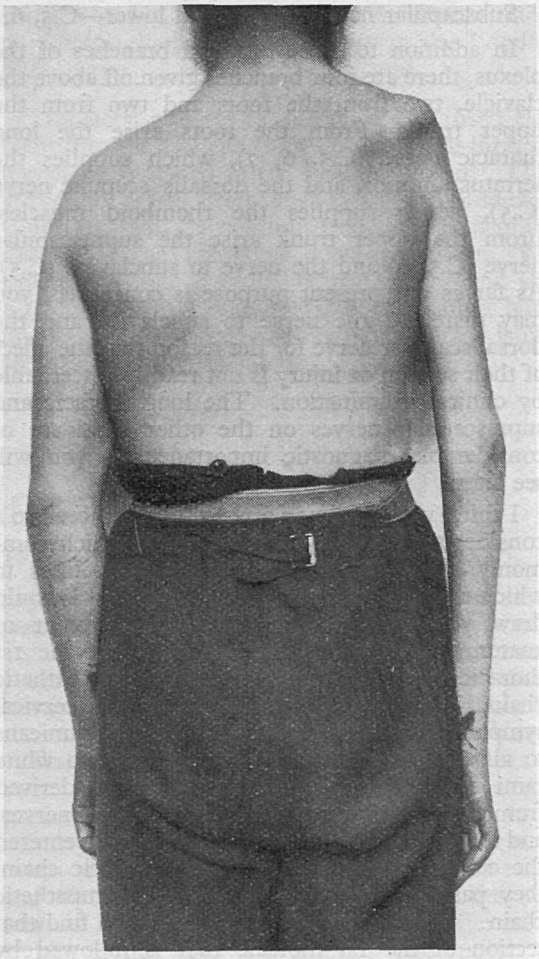

Fig. 2.

The same patient. Note the prominence of the spine of the scapula and the hollowing of the spinati fossæ. In this case the serratus anterior was also paralysed. In the hand the typical hyperextension of the metacarpo-phalangeal joint can just be made out. The fingers were the site of several trophic ulcers.

the medial border of the forearm, hand and little finger.

Paralysis of the intrinsic muscles of the hand eventually results in the deformity known as claw hand or *main en griffe*, and in this you will remember that metacarpo-phalangeal joints of the ring and little fingers are hyperextended and the interphalangeal joints flexed. The wasting of the interossei muscles is most evident in the space between the metacarpal bones of the thumb and index finger.

3. *The Total Arm Type* is not infrequently seen, particularly as the result of road accidents. As a rule the damage inflicted upon the nerves is of the most severe kind, and recovery is exceptional. You will, I think, have no difficulty in working out for yourselves the disability and deformity which arises. There is, of course, total paralysis of the upper limb, followed later by wasting of the whole extremity. There is also complete loss of sensation, save in two regions :—

1. Along the medial border of the arm from the lower border of the axilla distally to the medial epicondyle of the humerus, this area being supplied by the intercosto-humeral nerve (T.2).

2. In the infraclavicular region which is innervated by the supraclavicular branches of the cervical plexus (C.3, 4).

In these severe injuries the nerve roots are apt to be torn from the cord and occasionally you will see a case in which damage to the cord is evidenced by some spasticity in the lower limbs.

Such, then, are the three types of injury with which you are likely to be confronted in practice. There are, however, others, and of these I think it sufficient to draw your attention to two only, namely, injuries of the 7th cervical root and the middle trunk which it forms. Division of the 7th cervical nerve is followed by paralysis of (1) the coraco-brachialis muscle and (2) all the muscles supplied by the radial nerve except the brachio-radialis.

The coraco-brachialis, you will recall, is not affected in the usual case of Erb-Duchenne paralysis. The brachio-radialis muscle, on the other hand, is affected both in Erb-Duchenne paralysis and in injuries of the radial nerve. It follows, therefore, from this that the differential diagnosis between radial nerve injury and 7th cervical root (or middle trunk) injury can easily be made by determining whether the brachio-radialis is functioning normally or not. The muscle is a synergic flexor of the forearm, and in the normal state its contraction can be seen and felt without any difficulty when the elbow is flexed against resistance. The features of radial nerve palsy I dealt with at some length in my last lecture, and I need, I think, only now remind you that they comprise :—

1. Loss of the movement of extension at the elbow, wrist and metacarpo-phalangeal joints.

2. Loss of sensation to a very limited extent over the dorsum of the hand on its radial side.

The characteristic clinical feature of these cases is " wrist-drop," and you will note in this that while the patient is unable to extend the wrist and the metacarpo-phalangeal joints, he can extend the interphalangeal joints for the reason that this movement is performed by the interossei and lumbrical muscles.

Let us now turn for the remainder of the time at our disposal to the matters of treatment and prognosis. It is well, I think, to make it clear to you at the outset that in most cases, if not in all, little or nothing is attained by operation, and for these reasons : In the case of root injuries the parts are inaccessible and nerve suture is quite impracticable. Even in the case of the trunks which can be exposed without difficulty, it is by no means easy to determine the extent and nature of the injury. In all the cases which I have operated upon the plexus has been found to be embedded in a mass of scar tissue of such extent and thickness as to make the anatomy of the parts unrecognisable. In such circumstances there is obviously no possibility of effecting a nerve suture, and even neurolysis becomes a hazardous undertaking. It is, of course, true that the difficulties caused by scarring and fibrosis are not encountered in an early operation, but in the early stages one is not in a position to know whether the interruption of nerve conduction is anatomical or physiological. It is, in fact, only by waiting and observing such changes as may take place in the clinical picture that a more precise assessment of the injury may be made.

During this period steps should be taken to prevent stretching of the paralysed muscles and the development of joint deformity by unopposed muscle action. The nutrition of the paralysed parts may be maintained by the regular use of massage and various forms of physio-therapy, more especially heat, and at the same time the various joints of the limb should be moved to prevent the onset of stiffness.

The use of appropriate splinting is most important. In the Erb-Duchenne type of paralysis the arm is abducted at the shoulder and the forearm flexed at the elbow. The wrist should be slightly dorsiflexed. In the matter of abduction of the arm, the optimum amount is 90° ; the elbow should point forwards at an angle of about 20° in front of the coronal plane of the trunk, and

not directly outwards or even backwards, as one occasionally sees it.

In the total plexus type of injury the joints of the hand and fingers will also require splinting. The optimum position is one of extension, and this is attained by the use of a flat hand piece through which is threaded a number of webbing straps, the purpose of which is to keep the fingers straight. Such a handpiece should have an additional and separate gutter for the thumb, so arranged that the thumb lies in its normal relationship to the hand, that is to say in front of it. The remainder of the splint will be similar to that used in the upper arm type of injury.

In the lower arm type of injury it is, of course, only necessary to splint the hand in the manner I have already described.

Before leaving the subject of splints I should like to refer for a moment to the one which is appropriate in middle trunk (or radial nerve) injuries. I pointed out to you in the earlier part of this lecture that, as regards the fingers, the movement of extension at the interphalangeal joints is not lost for the reason that it is effected by the interossei and lumbrical muscles. Consequently the splinting in these cases should never be carried beyond the metacarpo-phalangeal joints. These joints, together with the wrist-joint, should be splinted in a position of moderate hyper-extension, but the fingers should be allowed complete freedom of movement.

In the less severe injuries signs of recovery will usually begin to appear within two or three months. In the majority of such cases there will have been but little sensory loss. It is not as a rule difficult to detect the return of power to the affected muscles, and in general you will find that your clinical observations are more reliable than the results of electrical tests which are apt to be misleading. I do not, of course, include the reaction of degeneration, although even this may be fallacious. In the more severe injuries there may be no sign of regeneration even after six months, and it is my experience that, if such be the case, the outlook is extremely bad. This is particularly true of the total plexus injuries, and the question then arises as to how long treatment should be carried on. I think in general that if there is but little or no improvement forthcoming after twelve months of treatment, it is hopeless to continue.

I have seen a number of cases in which treatment has been carried out over a period of many years without the slightest benefit. In all these cases there has been present a very considerable sensory as well as motor loss, and it has been obvious that the nerve roots have been damaged beyond all hope of repair. To persist in the treatment of such cases is clearly futile, and I have no hesitation in advising amputation.

You will, I think, have gathered that the matter of prognosis is one of great difficulty. Often it is impossible to forecast the course of events until several months have elapsed. In children the prognosis is relatively good; in adults it is less favourable. Large areas of sensory loss usually betoken irreparable damage, and small degrees of motor loss the converse. Unfortunately, these latter are not at all common, and you will find in general that in the average adult case the prognosis is very far from good.

Actinomycosis

A Clinical Lecture delivered at Guy's Hospital on 21st May, 1936, by Nils L. Eckhoff, Esq., F.R.C.S.

GENTLEMEN,—I am glad to have the opportunity of presenting to you some of the features of the disease called "actinomycosis," for I was myself not fortunate enough to see a case of this disease during my clinical period, and, in consequence, knew nothing about it when I met the examiners. Some of you may be in the same position to-day. This early misfortune has in my case been rectified, and it so happens that in the last few months alone I have come across no less than seven cases, the details of which will form the basis of this lecture.

The disease is due to the organism *actinomycosis bovis*, which, from its name, you will associate with cattle, for it is in these animals that it produces two conditions—woody tongue and lumpy jaw—whose names are somewhat self-explanatory. Infection in the human is said to be associated with contact with cattle, or with the habit of chewing straws and grasses, but it is not often possible to elicit a clear-cut history of such contact in one's own cases. It has recently been asserted that the organism is sometimes found in the mouth related to the teeth, and, if this is true, it makes it more easy to understand the method of infection in human cases. (Cope, Judd, Lord, Naeslund.)

The organism appears in the form of a gram positive mycelium, composed of interlacing branching threads. Segmentation may occur in these threads, producing an appearance like a row of cocci. At times, club-shaped swellings may appear at the ends of the terminal branches, and these tend to be disposed radially, leading to the name "ray fungus," or actinomycosis. This

appearance is not constant, and may be dependent upon the exact variety of organism in a given case. For there is no doubt that many varieties of organism may produce the clinical picture of the disease, and these have been carefully classified. It is beyond my powers to tell you anything about these, nor is it important to us to-day, except to state that one must employ the services of a competent bacteriologist in suspicious cases.

I can remember one man who had a nephrectomy through an anterior incision (for a large pyonephrosis), and as the wound took a long time healing, pus was sent for bacteriological examination. The report stated that " mycelial threads suggesting actinomycosis " had been seen. Some days later the tip of a gauze sponge presented in the wound, the wily dresser quickly assuring the patient that he had been waiting for this to happen, and that the cessation of the discharge and recovery would be rapid, which indeed it was.

PATHOLOGY

The pathological process is that of chronic inflammation, with a zone of small round-celled infiltration and a firm fibro-cellular zone extending for some distance into the surrounding tissues. Secondary infection and suppuration are common, leading to abscess formation and breaking down of the central part. When the pus has escaped there is a tendency for the central part to heal, but the infiltration continues, and further breaking down is to be expected elsewhere. This process is repeated several times, so that in a short time multiple sinuses may co-exist. The pus is typical. It is yellow in colour, and when looked at closely is seen to contain small yellow granular masses of a deeper yellow, usually called " sulphur granules." These can be identified macroscopically by diluting the pus with saline, and shaking in a test tube, when the pus will tend to be broken up and the granules will sink to the bottom of the tube.

The granules, when placed on a slide, pressed with a coverslip and stained, will be found to be made up of clumps of mycelium, with or without club-shaped processes. " Sulphur granules " are not always to be seen, and therefore microscopical examination of pus in all chronic suppuration is to be recommended.

CLINICAL FEATURES

The parts of the body most commonly affected are the face and jaws, the appendicular region and the lungs, although other parts may be involved by direct extension, by metastatic infection, or occasionally by direct inoculation.

Case 1.—Female, aged 23. This girl had a carious right lower wisdom tooth extracted under mandibular anæsthesia (20-12-35). The tooth was carious and incompletely erupted, so that bone had to be cut away before it could be removed. Some swelling a few days later, but no suppuration in socket. Some weeks later there was a much larger swelling, and the next tooth was found to be tender and to contain a large cavity. This was extracted (25-2-36) under gas anæsthesia, but there was no improvement in the swelling. An X-ray picture was taken, which revealed an abscess (chronic) about the roots of the first molar. This was now extracted under gas. Still no pus appeared after the extraction. I saw her on March 25th, 1936, when there was a brawny swelling about the angle of the jaw, which was pointing externally. The next day an incision was made into the swelling, the dental surgeon at the same time extracting a root which had been forgotten in the right lower 8 region. A week later a small collection of pus was seen lower down the neck,

Fig. 1—Typical migrating neck sinuses with intense fixity to deeper structures.

and at once suspicions of actinomycosis entered the mind (for this is typical of the disease). These suspicions were strengthened when yellow granules were seen at the opening of the abscess, and

confirmed by microscopical examination of the granules. In this case no clubs were to be found, but a rich growth of mycelium. A week later the condition had spread further (see Fig. 1), and the skin and subcutaneous tissues were firmly indurated and adherent to the deeper tissues.

Case 2.—Female, aged 40. March 1st, 1936. Right jaw became swollen. This subsided a little and the wisdom tooth was extracted under gas. The swelling returned and got bigger. Temperature normal. The swelling was always above the angle of the jaw, and the bone could be distinctly

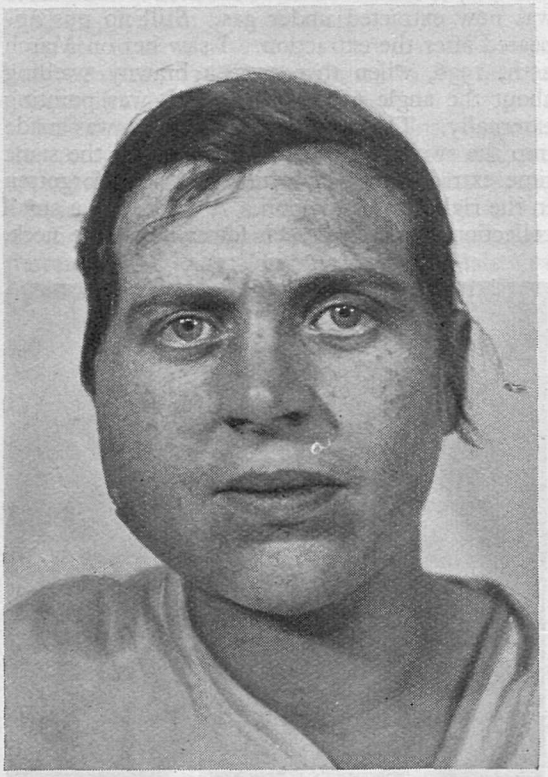

Fig. 2—Actinomycotic abcess in parotid region.

traced under it, suggesting that the abscess was in or over the parotid. The abscess was incised and pus containing "yellow granules" escaped, while actinomycosis was found on microscopical examination. (See Fig. 2.)

Case 3.—Male, aged 45. Admitted to hospital with a large swelling of the side of the face. At operation abscess was opened which lay deep to the temporal fascia. From the pus actinomyces were grown.

Case 4.—Male, aged 18. This boy had a left upper premolar extracted and was admitted to hospital with a swelling of the cheek, leading up to the eye, and causing œdema of the eyelid. Many incisions were made, and from the pus actinomyces and hæmolytic staph. albus were obtained.

Case 5.—Female, aged 26. Admitted August 16th, 1935. Five weeks before admission had epigastric pain, which moved later to the right iliac fossa. The pain continued until admission, when there was guarding in the right iliac fossa and some tenderness per rectum.

Operation was performed by the resident surgical officer, and an abscess was drained, the appendix not being found.

I saw her on my return from holiday, when the wound had ceased to drain, and she had all the symptoms of a pelvic collection. Some days later she suddenly developed intense pain, showing the signs of peritonitis, and I operated, finding pus all over the peritoneum. The appendix still evaded capture, further drainage being instituted.

September 17th, 1935.—X-ray of chest was normal.

One or two attacks of threatened intestinal obstruction were overcome by medicinal and drug treatment, although ileostomy was considered and discussed with Mr. Massie. The temperature remained high, and the patient very toxic.

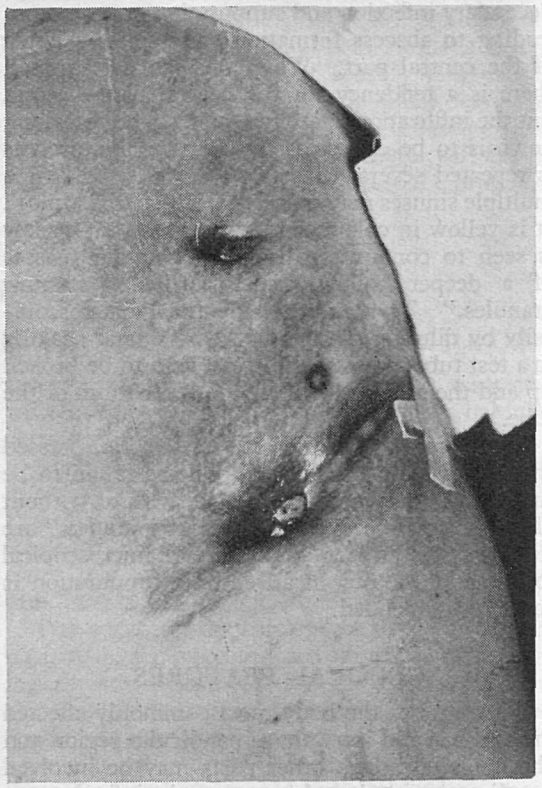

Fig. 3—Empyema scar and adjacent sinuses.

November 29th, 1935.—Fluid was found in the chest, and one ounce of pus evacuated by rib resection. Actinomyces found in the pus.

January 27th, 1936.—Actinomycotic filaments seen in pus from abdomen.

February 28th, 1936.—Patient discharged to Schiff Home.

May, 1936.—Patient readmitted, looking brown but appreciably thinner. Chest and abdominal sinuses still discharging. (See Fig. 3.)

Case 6.—Female, aged 25. Had operation for appendicectomy. Had chronic discharging sinuses all over right iliac region, with the blade of the ilium projecting through the abdominal wall for a year before death.

Case 7.—Male, aged 36. Condition started in April, 1934, with an area of superficial inflammation in the abdominal wall, below the umbilicus, and an irregular mass, the size of an orange, in the left iliac fossa. Previous history of pain and tenderness in the left side suggesting diverticulitis.

Fig. 4—Abdominal scar and sinus in left flank. Note signs of delayed healing.

April 10th, 1934.—Operation through central incision, which refused to heal. Barium enema at this time normal. Lipiodol inserted into sinus suggested that this led to the mass in the left iliac fossa.

September 20th, 1934.—Sinus explored and found to extend deeply through indurated abdominal tissues, with a collection of pus in the deeper parts.

Actinomycosis suspected, but not established till November 1st, 1935. The cavity has since been laid open and packed on more than one occasion, with no permanent relief. (See Fig. 4.)

Has had iodide and tincture of iodine by the mouth, collosal iodine injected into the sinus, actinovaccine, N.A.B., and artificial sunlight with no great improvement.

Admitted to Guy's for deep X-ray therapy.

March, 1936, returned for further deep X-ray treatment.

Cases 1, 2, 5 and 7 are either in or have recently been discharged from the wards here.

You will appreciate from the notes of these cases that actinomycosis may affect various parts of the body. These are involved in the following percentages: Neck and jaws, 60 per cent.; gastro-intestinal tract, 20 per cent.; chest, 15 per cent.; elsewhere, 5 per cent.

JAW CASES

The infection frequently occurs in relation to a tooth. It has recently been shown that the organism can be found in the tartar that surrounds the teeth. There is no need to presuppose contact with animals, or the chewing of grasses, and most patients will not only deny this contact, but resent the suggestion.

From the jaw the infection spreads to the submaxillary region or into the cheek, where it usually points, and is incised. It is, however, quite characteristic for a further abscess to form lower down, which in turn points, and has to be incised. It is possible for the infection to spread in this way until the mediastinum is reached.

ABDOMINAL CASES

The region of the cæcum and appendix is most commonly involved, and the most usual history is that the appendix has been removed and the wound failed to heal. The condition must be suspected in all those cases where there is much induration around an appendix, and pus taken for examination, for it is only by the early discovery of these cases that we can hope for any advance in treatment.

Inflammation spreads gradually and insidiously by continuity to other abdominal organs, and fistulæ may form between hollow viscera. Thus vesico-colic fistulæ or external fistulæ are not uncommon. Multiple sinuses are also to be expected. Bone also becomes involved by direct extension, and I have in mind two cases, one in

which the iliac bone was riddled with sinuses and another (already quoted) where the ilium stood out of a gaping wound, laying bare the whole of the iliac fossa. It later separated as a sequestrum.

Finally, the infection spreads via the portal venous system to the liver, producing here a honeycombed actinomycotic abscess, which you all learn to recognise, and to distinguish from other forms of liver abscess. Once the infection reaches the liver death is not far off, and the outlook for all abdominal cases is extremely grave for this reason.

CHEST CASES

Some cases are primary in the chest, the organism entering by inhalation. Some may be caused by a spread of infection from the neck, and others, like the one quoted above, by spread from the abdomen. As this case had diffuse abdominal suppuration it is not improbable that the spread was direct through the diaphragm.

Lungs, pleura and mediastinum may become involved, and most cases spread from one to the other. Metastatic abscesses may follow in distant parts, *e.g.*, meninges, although in two recent cases of meningeal actinomycosis in the hospital no primary infection was found in the chest.

OTHER ORGANS

I have already referred to involvement of bone by direct spread. The bones are not attacked primarily. The genito-urinary tract may become invaded in abdominal cases. Primary infection of the skin is not unknown, nor is tongue infiltration. The brain is sometimes affected by metastatic infection, and the heart and pericardium by direct infiltration in chest cases.

TREATMENT

When abscesses form, incision becomes necessary, but this is rarely curative, for a chronic sinus usually follows. In cattle the disease responds favourably to large doses of potassium iodide, but in man this has not met with such striking success. This drug should, however, be prescribed in large doses, increased up to gr. 100 three times a day. Iodine in milk has also been recommended, and this should be given in doses of 10 to 20 minims three times a day. Lugol's iodine is usually used.

Local injection of iodine in alcoholic solution into and around the lesions has met with some success, and potassium iodide has been used similarly. Hydrogen peroxide should be used to instil into the sinuses, especially in anærobic cases.

Radiotherapy is strongly to be recommended, in the form of deep X-ray for chest and abdominal cases, and radium for face and neck cases. A collar is made of stent or Columbia wax to cover the area it is wished to irradiate, and needles are placed on this so as to obtain a uniform infiltration. This is left on for five to seven days. There is some skin reaction ten days later, and healing usually occurs in eight weeks.

PROGNOSIS

The prognosis in face and neck cases is ultimately good, if treatment is carried out on the lines suggested, but in chest and abdominal cases it is bad, and when the liver is involved it is hopeless.

Dr. Carter Braine has given me information of several face and neck cases under his care that have remained healed for years, and I can add to this one or two of my own. He also tells me of one chest case that remained healed for two years, the patient being able to return to work as a dental surgeon. At the end of this time he was killed accidentally. This case gives one encouragement for the more serious types in the future. Naturally, the earlier the diagnosis is made the greater the prospect of cure.

To the Union of the Clubs, To the Sub-Committee Sitting, Sitting on the College Question

YOU shall hear how all the Guyites,
Living on the Burroo Prairie,
In that air so rich and fragrant,
With the drying hops so scented ;
How at noon they all together,
To the College in their hundreds,
Make their way with joy and laughter,
For they think of what awaits them,
Of the feasting and the comfort
In the cavern they call the Spit.
Who are these who come so hungry,
Come in tens and come in twenties
Covered in blue and orange paint,
Look so earnest, look so clever ?
These are they, the hardest workers
Of the unknown crowded nations,
Restless, struggling, toiling, striving
For the exams. of Medicine-Man.

DR ELLIS
OP

See them enter in the portals,
Hurry towards the stonee staircase,
One upstairs and one to the Spit,
Leaping, bounding o'er the baggage,
Coats of buckskin, deerskin trilbys,
Tomahawks of First Eleven,
Green pork-pies and hunter's head-dress,
These are all put in their pathway.
Now at last within the clearing,
All the people look around them ;
O the happy thoughts of eating,
Quaffing down with laughs the water,
Water from the Great Maze Pondee.
O the bitter disappointment,
O the chagrin and the hunger,
Of the patient famished hundreds,
As they see all chairs are taken
By the earlier of the tribe.
Round the walls are hung the trophies
Of the hunters, there are many
Heads and horns and skins all borrowed
By the people of the Burroo.

At the feast there are some others,
Many a chieftain of the land,
There the Big Chief Tee-Be-Jon-Ton,
He the head of all the people,
Splendid in his paint and plumage,
Dreaded by the Lekcha-Cuttah.
Thus with scimitar he sits there,
Round him squat the Tribal Big-Wigs,
Resting after heavy feasting,
Each a redstone pipe for smoking
Of tobacco from the South-land.
All are listening to the Big-Chief,
He the hunter, he the slayer,
All the corpses he has pickled.
And the Residents are here, too,
Each with stories of his Wig-Wam
Looking out on Sparrock's Row.
In these Wig-Wams, so it is said,
Creep and crawl the biting Bed-Bug
And the little friendly Itch-Mite.

What of those who still are hungry ?
See them now descend with courage
To the place where there is plenty,
To the place of great tradition,
Where the food has never altered,
Where the chairs are still all broken,
Where there never has been varnish,
Where the air is always solid
With the purple mists of pipe-smoke.
Lift your noses high, and look there
At the open door before you,
Through which comes the myrrh-like incense
Reminiscent of another.
Listen to the hideous clatter,
And the beating of the rhythm,
As the plates are hurled together,
And the knives and forks break tumblers.
See the solid struggling masses,
Waiting for the turn that may come
For the taking of a mouthful.
To the Spit come only jugglers,
A bowl of soup upon their heads,
Each hand grasping cups of coffee,
On their shoulders things for eating.
In and out among the tables,
Treading softly like a panther,
Whirling, spinning round in circles,
Jumping o'er the men assembled,
Over armchairs, under benches,
And finally the hard-won meal.

All the rest who do not hurdle,
Those who have not won their Half-Bloos
For the game of Jim-Nass-Teeks,
They must go without their feasting,
Else go to the " Ship and Shovel,"
There to find the place is fuller.
So the discontented hunters,
In the Park they make a pike-neek,
Where the pigeons in the forest,
Look down on the greensward margin,
See the happy prairie feasters.

Thus go back the well-filled people
To the work they love so well,
To an afternoon's enjoyment,
Fortified by their good meal.

Yes, we know what you have said,
You have told us of Committees,
Who are sitting and consid'ring,
And consid'ring and are sitting,
But, we say to you, " Do hurry " !
Or we shall begin to doubt you,
And the young ones and the old ones
Look and titter at each other,
" Kaw ! " they'll say, " We don't believe you."

J.H.

Guy's Hospital Gazette
(ESTABLISHED 1872)

A Journal of Hospital News, Medicine, Surgery and Dentistry

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The Editor will, at all times be glad to consider articles or sketches, provided that they are accompanied by the writer's name and address, not necessarily for publication. Authors who desire reprints of their papers should make their own arrangements with the Printers when they return their proofs. All contributions to be addressed to *The Editor*, who does not accept responsibility for the views expressed by contributors.

Correspondence

Standing Orders

To the Editor of the GAZETTE

SIR,—I should like to bring to your notice lines 9 and 10, page 17, of "Regulations with Regard to the Ordering, Custody, etc.," issued by order of the House Committee, May, 1936.

It appears from this paragraph that the House Committee accept as a fact that accidents can occur through mistakes in receiving messages over the telephone; or does the House Committee assume that house-officers frequently "clear" their beds by this method?

Yours, etc.,

INQUISITIVE.

Guy's Hospital,
S.E.1.

Mural Design for Smoking-Room

To the Editor of the GAZETTE

SIR,—May I remind members of the Students' Club that only a short time remains for entries for the competition for a mural design for the Smoking-room?

Mr. Slesinger has offered a prize of five pounds for an accepted design, and he is very anxious that this should be awarded.

I should remind competitors that they will not be expected to execute the design on the wall itself, but only to submit a small sample from which a large-scale reproduction can be made.

Entries should be forwarded to me at the address below before July 7th.

Yours, etc.,

H. J. B. ATKINS.

22, Merrick Square,
S.E.1.

Sport

Boat Club

FOR the last year or two the activities of the Club have been distinguished for steadiness rather than spectacle. It has maintained, and at times slightly improved, its position (46th) in the Head of the River Race, which has entries of 140 crews. With some regularity it has maintained its position in the Inter-Hospitals Regatta. The successes have been confined to the smaller crews, such as the Pairs in last year's Regatta.

It is nine years since the Cup for the light eights was won. It is seven years since the Club invested in that experimental boat which proved such a handicap until, by the grace of God and a hired cox, she had her bottom ripped out in the shallows under Barnes Bridge. The Clubs' Union very generously provided a new boat, built by Phelps, which has been the envy of the other hospitals. This, with a new set of oars, removes an old but only too sound excuse. It would, therefore, be pleasing to have some result to show this year.

Such, happily, is the case. In this season's activities the Hospital crew went up thirteen places in the Head of the River Race, a remarkable jump, and a record for the Hospital; but, of more importance, the Inter-Hospitals Cup came back to the "Spit."

HEAD OF THE RIVER RACE

Rowed on Saturday, March 21st, with an entry of 139 crews, the Hospital boat started as No. 46. The start itself, at a rate of striking of 39, was good, and for a time the crew gained on the boat ahead. Unfortunately, this was Peterhouse (Camb.), who themselves went up a number of places, as did also the crew ahead of them. For this reason the Hospital had to row over this $4\frac{1}{2}$ miles' course without any competition until the last quarter-mile, when it caught Ibis R.C., which started three places ahead of it.

At the mile post, the eight became aware of Ibis ahead, and a series of "tens" brought them within sight. A final exciting race past the boat-houses down to the bridge brought the boats slowly closer, and a last spurt drew the Hospital level. A good finish to a very steady race, though unfortunately without actual competition.

The crew consisted of the following:—

V. Samms (*bow*)	9	stone	12 lb.
J. Henry	10	,,	4 ,,
J. H. Rake	13	,,	2 ,,
G. S. Wigley	11	,,	10 ,,
C. R. Tilly	11	,,	2 ,,
R. W. Stevenson	11	,,	7 ,,
W. S. Harvey	11	,,	13 ,,
C. D. Cormac (*stroke*)	13	,,	1 ,,
F. Ritchie (*cox*)	7	,,	0 ,,

To go up thirteen places was a good performance, and the time of 21 minutes 12 seconds is very encouraging. The only hospital to improve on this was St. Mary's, who finished two places ahead.

INTER-HOSPITALS REGATTA

Rowed on Wednesday, May 21st. The main event was, of course, the light eights. Owing to Hospital appointments and " take-ins," the eight did not get together till ten days before the race, and it was decided that concentration on this was advisable. However, C. D. Cormac stroked a Pair with G. S. Wigley (stroke) after only one practice outing. They were beaten by St. Thomas's in a heat the evening before.

Wigley also sculled in the Senior event and Roseveare in the rum-tums. But it was bad luck that Wigley should have to race directly after the Eights.

In the light eights the Hospital had the centre station with St. Thomas's (Middlesex) and St. Mary's (Surrey). From a stake-boat start under Hammersmith Bridge the Hospital got away very well, establishing a slight lead at once. The rate of striking was 12, 22, 40, in the first quarter, half and full minute. Coming round the corner at Harrod's the boats ran into very bad water, with the wind across the tide. Cormac dropped the stroke slightly, keeping it at about 34. St. Mary's began to fall back. Ritchie was coxing very well, keeping a good course round the bend to Beverley Brook. Here St. Thomas's came up, but an answering " ten " kept the lead. At the Thames Boathouse they again spurted, drawing level. With about a quarter of a mile to go Cormac, who stroked with magnificent judgment, called on the crew for a final effort. Both strokes raised the rate of striking, and in an exciting finish Guy's gradually drew away to win by a canvas. St. Mary's were two lengths behind.

The crew representing the Hospital consisted of the following :—

C. R. Tilly (*bow*)	10 stone	12 lb.
J. Henry	10 ,,	2 ,,
J. H. Rake	13 ,,	2 ,,
G. S. Wigley	11 ,,	10 ,,
E. R. Roseveare	10 ,,	9 ,,
R. W. Stevenson	11 ,,	7 ,,
W. S. Harvey	11 ,,	13 ,,
C. D. Cormac (*stroke*)	13 ,,	0 ,,
F. Ritchie (*cox*)	7 ,,	0 ,,

It is impossible to close this report without mentioning the rugger four. P. J. Gardiner was stroke, with A. J. Smith, M. O. Richardson, and P. J. M. Kent at bow. They were coxed by T. H. Steele-Perkins. After a very steady afternoon's training, they lost by about three pints.

Hospital Information, etc.

Pass List

ROYAL COLLEGE OF SURGEONS OF ENGLAND.

F.R.C.S.

A. Bowen-Davies — F. I. Evans — J. E. Spalding

UNIVERSITY OF LONDON.

THIRD (M.B., B.S.) EXAMINATION FOR MEDICAL DEGREES.

May, 1936.

Honours.

†R. S. Ellis-Brown — *C. A. Lillicrap

*Distinguished in Medicine.

†Distinguished in Surgery.

Pass.

A. G. Edwards — G. H. W. Keates
G. J. Evans — H. M. Kelsey
J. E. Giesen — J. M. McArthur
H. R. S. Harley — E. Sayle
W. W. Jones — F. Taylor

GROUP I.

D. F. Freebody — B. W. Hunt — G. N. Wright

GROUP II.

J. C. Colbeck — T. E. Howell

UNIVERSITY OF CAMBRIDGE.

BACHELOR OF MEDICINE.

C. G. Pantin.

Papers by Guy's Men

W. H. Bradbeer. Two cases of pneumococcal mastoiditis. *Jour. Laryngol. and Otol.*, 1936, li, 394.

Ronald Jarman. Modern anæsthesia. *Post-Grad. Med. Jour.*, 1936, xii, 222.

W. W. Payne. Diabetes in children. *Clin. Jour.*, 1936, lxv, 242.

R. Bradlaw. Malocclusion in animals. *Dental Record*, 1936, lvi, 437.

T. B. Layton. Medical tactics in mobile warfare. *Jour. R.A.M.C.*, 1936, lxvi, 367.

Appointments

A. R. Gillies, L.D.S.Eng., appointed Dental Surgeon, British Dental Hospital and Clinical Assistant, Dental Dept., St. Bartholomew's Hospital.

S. Wickenden, M.R.C.S.Eng., appointed Medical Officer to Civil Flying School and Air Port, Perth.

Changes of Address

J. V. C. Braithwaite, Crow Lees, 7, Springfield Road, Leicester. *Leicester* 7692.

S. Wickenden, 16, King Street, Perth, N.B.

N. P. Rodgers, 69, The Avenue, West Ealing, W.13.

Births

HARLEY.—On May 29th, 1936, at Hutton Nursing Home, to Maudie (née Elliott), wife of Dr. H. N. W. Harley, of 70, Brighton Road, Purley—a son.

WORTHINGTON.—On May 22nd, 1936, at 37, Jury Street, Warwick, to Helen Audrey, wife of C. L. Worthington, M.B., B.S.—a daughter.

EDS. { P. W. C. / M. A. P.

GUY'S HOSPITAL GAZETTE

A Journal of Medicine, Surgery, Dentistry and Hospital News.

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PASSIM

WE flee him down the night and down the days, we flee him down the arches of the years, but the hound is always close behind us; and one sometimes feels that at Guy's we are perhaps too closely followed by the past to make our proper plans for the future. Perhaps we bask a little more than we should in the reflected glory of Addison and Bright, in the genius of Keats and Sir Astley Cooper. But London University is now a hundred years old, and at this centenary we may turn without reproach and revel in tradition. To celebrate this birthday there was a small but choice exhibition held in the Gordon Museum on Tuesday, June 30th, which deserved a larger attendance than it received. Our treasures were brought out. The reports also are a hundred years old this year, and the first edition was on view. There were mementoes of Dr. Babington and Sir William Gull, there was the first edition of Hilton's "Rest and Pain"; there was a round-celled sarcoma and a rhabdo-sarcoma of the testis removed by Sir Astley Cooper, and a wen of rare price that once perhaps graced the head of George the Fourth. There were Sir Astley Cooper's lectures in the finest handwriting, and Bright's reports on medical cases. Hodgkin, that great Quaker, was represented by some of the original fish-flesh and hardbake, and that it still cuts well and stains to perfection was shown by the very beautiful microphotographs taken by Dr. Herbert Fox, of Philadelphia, who was recently allowed a piece of tissue for this purpose. This specimen, stained by modern methods, has retained its identity for a hundred years, and corresponds closely with the histological picture of Hodgkin's disease as it is recognised to-day.

The exhibition ranged from then, through Sir Samuel Wilkes, Dr. Lever, whose obstetric forceps were on view, almost to the present day. Starling's original oncometer was there, and the first edition of his famous text-book, and there was the chamber devised by the late Professor Pembrey for his measurements of the respiratory exchange of the hibernating marmot. The display was well arranged, and it was pleasant to be reminded of the magnificence of our famous collection of wax models by the selection of some of the very best to be placed among the exhibits. We wrote lately of Dr. French's "Differential Diagnosis," that it contained colour reproductions better than any we had hitherto seen in England, so that it came as something of a surprise to see the colour engravings of a hundred years ago by F. and W. Say in the first edition of the Reports.

On such an occasion it is a pity that there were not more people to take a step out of the Park into the past.

WE have mentioned before the building of the new Pathology Block, which it was hoped would be completed by 1937. This seems unlikely, but a start has been made, and the site has been in process of being cleared for some time past. The warehouses between the Medical School and the Borough High Street are coming down, and already there has been extensive demolition. The day is almost within sight when we shall have an island site to ourselves, with an entrance in the Borough High Street. The enthusiasm over the building of a new squash court which we did our best to foster some months ago may here, perhaps, find its gratification. It is even possible that in the future there might be two. But our source of information is only that notoriously unreliable bird that flits between committee rooms. Of course, no reliance can really be placed upon it,

for it has gone so far as to suggest that there might also be a car park. Fantastic creature!

THE Spit, that haunt of old saliva, will, it is hoped, be in full bloom at the end of August. A bill for the redecoration, and to some extent reconstruction, has been passed by the Students' Club Committee, and has now only to be submitted to the College Committee. These, in contradistinction to the usual methods, are quite different bodies; the latter is formed of six members of the Governing Body and six members of the Staff. We pray that this House of Lords will not veto a project so laboriously conceived, and, if it does not, work will start on August 3rd, and will be completed, according to the schedule, by the end of the month.

WE publish elsewhere, in this summer warmth, an advance copy of the Rugby Football Club Fixtures for the season 1936-37. It will be noted that we have now a fixture with the Royal Air Force. This gives us the distinction of being the only hospital to play both the Army and the Air Force. It is hoped, in addition, that the Devonport Services will bring a more or less representative Navy team. We congratulate the following on their election:—

Mr. R. C. S. Dick, Captain.
Mr. C. S. Darke, Vice-captain.
Mr. E. S. Nicholson, Secretary.

WE congratulate Mr. A. J. Grace, some-time House Surgeon to Mr. Davies-Colley, on his appointment as Surgical Registrar. Mr. Grace is one of that select band who have become Fellows of the Royal College of Surgeons while still Residents.

Since then he has held appointments on both sides of the Atlantic, both in his native country and at Oxford, where he has had the coveted position of Resident Surgical Officer at the Radcliffe Infirmary.

WE mourn the passing of Mr. W. H. Bradbeer, M.S., F.R.C.S., Registrar to the Ear, Nose and Throat Department, who leaves us for Torquay. Since he styled himself our "average reader," we have come to rely upon his views and to appreciate his criticism. His migration is a loss not only to ourselves but to all who call a ship a shovel.

THE loss of two Willie Clarksons in a year is really too much. It seems but a few months since we had in the College posters announcing the death of Mr. Willie Clarkson, the most famous costumier of the age. Now we have lost Mr. Willie Clarkson, one of the ablest editors the *Gazette* has had for some time. His retirement calls to mind the confusion over those posters of a year ago. It is now two years since Mr. Clarkson joined the editorial staff, and for some time he says that he has had tinnitus caused by the younger generation knocking at the door. A man of great resource in the occasional crises to which we find ourselves subject, and a courageous controversialist, he has fostered many enjoyable ramps, and in a quiet way we have had much fun. After his stimulating presence the editorial office seems strangely still. But at hand we have his successor, Mr. A. G. W. Hill, who will help us to avoid the libel actions while we yet appear twice a month.

Pulmonary Abscess

A Clinical Lecture delivered at Guy's Hospital by E. R. Boland, Esq., F.R.C.P.

GENTLEMEN,—It is not really necessary to differentiate between pulmonary abscess and gangrene, since one can look on an abscess as a localised suppuration of the lung, whilst gangrene is a generalised suppuration without localisation. Gangrene is likely to occur in a lung if the invading organisms are of such a particularly virulent nature from the first that the infection spreads too fast for the disease to become localised, or if the defensive mechanisms of the body are so lowered by previous illness, old age, alcohol, or other debilitating circumstances that no effective resistance is made. While the distinction between the two conditions has an obvious bearing on treatment, it is convenient to classify them together in the way I have suggested. This is merely returning to the classification of Laennec, who described a diffuse and circumscribing gangrene of the lung.

Abscess of the lung may arise in several different ways: Firstly, by inhalation of infective material from the nasopharynx; secondly, by an embolus which lodges in the lung and is either already infected or becomes so; thirdly, by suppuration of the lung complicating pre-existing pathological lesions, and fourthly, by wounds of the lung or extension of suppuration from adjoining organs or tissues.

Of these causes, inhalation is probably the most important. It is perhaps not so obvious a cause of abscess in this country as it is in the United States of America, where, to use a somewhat exaggerated figure of speech, pulmonary abscesses seem almost as common as peanuts. These nuts might almost have been designed for inhalation. Anyone who has seen a small boy at a baseball match consuming enormous quantities of peanuts, tearing the shells with his teeth, while he shouts himself hoarse, will understand how easily a fragment may pass down his trachea into his bronchi, where it forms an ulcer with eventual penetration and suppuration of the lung. In children, pips, stones, bits of whistles, pins and all sorts of bizarre foreign bodies may lead to abscess; in adults, fillings, portions of dentures, fish and meat bones are more likely foreign bodies to be met with in this way. Foreign bodies may gain admittance to the trachea of perfectly fit people, but they are obviously more likely to do so in people who are debilitated by long illness or old age or whose reflexes have been abolished by disease of the central nervous system. In this context I have twice seen pulmonary abscess occur in epileptics whose loose teeth have mysteriously disappeared during a fit or during teeth-grinding attacks at night.

However common the inhalation of foreign bodies may be as a causative factor, inhalation during operations appears to be much more common. Abscesses may occur in any patient who has had a general anæsthetic through aspiration of foreign bodies, blood, mucus or other infected material, but they appear to be much more common after operation on the upper respiratory tract, usually under general anæsthesia, but also under local anæsthesia. Any operation in this area may occasionally be followed by abscess; operations on the nose, sinuses or teeth, for example, but they much more frequently follow operations on the tonsils, perhaps because this is the most frequent operation in this area. Oto-rhino-laryngologists are said to state that abscess rarely follows tonsillectomy in this country, whereas it frequently does in the United States of America. The explanation for this discrepancy may either be that throat clinics in America have better opportunities for following up their cases than clinics have in this country, or else that the technique of the operation differs in the two countries. Although one can relatively rarely trace the development of pulmonary abscess from an antecedent tonsillectomy, I have several times seen abscess diagnosed sufficiently long after the operation for the patient to have passed out of the hands and recollection of the throat specialist, and the patient himself may not connect the two events, even although the tonsillectomy has taken place only a few weeks previously.

With regard to the difference in technique, two cases which I saw a few years ago may have some bearing. In one year I saw two pulmonary abscesses in patients who had been operated upon a few weeks before at a hospital for the diseases of the ear, nose and throat. Both tonsillectomies had been performed by the same operator, and when I made inquiries I found that, alone of all the surgeons of the staff of the hospital, he was in the habit of operating on his patients under general anæsthesia in the semi-erect position. A general abandonment of this posture for operation has undoubtedly diminished the risk of inhalation. I have very occasionally seen dental extractions performed under general anæsthesia in a dental chair. Anyone who allows this exposes his patient to considerable danger. Those of you who have officiated in the gas-room will realise how easy it would be for fragments of teeth or for blood to get into the air passages while the patient is in the dental chair were it not for the sponge in the pharynx and the relative lightness of the anæsthetic, and yet accidents happen, and I believe that the extraction of teeth is more often the cause of a pulmonary abscess than is generally thought. I do not wish to give you a false impression so that you feel you are taking your life in your hands if you go to see the dentist or have your tonsils removed. Pulmonary abscess is a relatively rare condition in any event, and it is a relatively rare complication of tonsillectomy. At the same time, the importance of tonsillectomy as a cause of abscess must be stressed, since although abscess relatively rarely follows tonsillectomy, the history of a recent tonsillectomy is found in a high percentage of cases of pulmonary abscess. I have already mentioned the discrepancy between the American and British statistics. Here are some American ones: In 34 cases of pulmonary abscess described by Singer there was an antecedent operation in 11 cases or 32 per cent., and 8 of these operations were tonsillectomies; in a series of 1,908 cases collected by another American, 515 or 26.9 per cent. followed operation, and over half of these were tonsillectomies; other authorities quote even higher percentages. One authority, speaking of American cases, states that one case of pulmonary abscess occurs in 2,500 to 3,000 tonsillectomies. Probably this figure is rather too high for this country.

The second cause of pulmonary abscess is a pulmonary embolus. This, of course, may also arise after surgical operation, a septic embolus coming from an infected thrombus of the veins,

as, for example, from the lateral sinus or the pelvis. They seem to be especially common after appendicectomy or after septic pelvic conditions in women, but they may obviously occur in any condition in which phlebitis occurs, and, as might be expected, these abscesses are very often multiple. It is possible that the abscess which follows tonsillectomy may be of this nature and not due to inhalation, but the fact that these abscesses are so often in the lower lobe and so often single seems to point in the opposite direction.

The third cause I mentioned was suppuration complicating pre-existing pathological conditions of the lung. Of these, pneumonia is the commonest. Although it follows very much more often streptococcal or influenzal pneumonia than pneumococcal pneumonia, occasionally secondary infection of a pneumococcal pneumonia may result in the formation of a pulmonary abscess; it sometimes follows bronchiectasis, extremely rarely tuberculosis, and not infrequently carcinoma. I can remember two cases of pulmonary abscess in which the ætiological factor was only detected when a microscopical section of the wall of the abscess was examined and found to be carcinomatous. Hydatid cysts and other rare affections of the lung account for a few cases of this nature—I will spare you a catalogue.

The fourth category is a relatively unimportant one. Perhaps pulmonary abscess following an amœbic abscess of the liver or a subphrenic abscess is the most important of these.

The most frequent site for a pulmonary abscess is in the right lung, and this holds both for inhalation and embolic abscesses. They are more frequently found in the lower lobes than the upper. Abscesses which follow inhalation are more likely to be found near the roots of the lung in association with the larger bronchi, whilst those due to embolism are more likely to be peripheral.

However the abscess is produced, there is a formative period lasting a variable number of days when there is a solid mass of inflammatory tissue, surrounded by œdema of extravasated blood, and this eventually becomes liquefied and there is left a cavity ranging from the size of a grape-fruit to a cherry, full of pus, with a wall composed of necrotic lung tissue which is gradually replaced, if the patient survives, by thick fibrous tissue; traversing the cavity may be found blood vessels and remains of bronchi; the former are frequently thrombosed, but not invariably, and may be the cause of a fatal hæmorrhage. I have already mentioned that abscesses due to emboli are frequently, but not invariably, multiple. Small abscesses are often found in close association with an original single inhalation abscess caused by the spilling over of infected material from the primary abscess, and by the same process abscesses not infrequently appear at the base of the opposite lung. Abscesses of the lung are said to be almost always multiple, but this statement is based on post-mortem statistics, and it may well be this multiplicity of abscesses which brings them to the autopsy table.

The complications of pulmonary abscess are many and serious. Empyema is, perhaps, the commonest, and this frequently follows actual rupture of the abscess into the pleural cavity. There is very frequently pyopneumothorax with a bronchial fistula. Cerebral abscess is an occasional complication, as are also pericarditis, mediastinitis and mediastinal abscess. Hæmorrhage is a frequent and fatal complication, as I have mentioned already when speaking of the vessels which traverse the cavity, but hæmorrhages also occur from the vascular granulations in the wall of the cavity itself. Bronchiectasis is an almost invariable complication of the chronic abscess.

The symptoms of pulmonary abscess are in the early stages those of suppuration, that is, fever, chills, lassitude, loss of appetite and weight, and profuse sweating. Pain appears early as the result of extension of the inflammation to the pleura. There is usually cough in the early stages. There may be no sputum. After a few days or weeks as a rule the abscess makes communication with a bronchus, and foul sputum, frequently blood-stained, appears in large quantities. The symptoms are sometimes dramatic from the first, but are often insidious, and I have seen several cases in which the first symptom was the coughing up of a pint or so of stinking pus. Clubbing of the fingers is usually found, and I have seen it appear within a week and disappear within a few weeks after drainage of the abscess. An inhalation abscess is liable to communicate with the bronchus at an earlier period than is that due to an embolus because it is less peripheral. The temperature is usually high and of a hectic type, swinging several degrees up to 105 or so, accompanied by chills and profuse sweating. The temperature is in inverse ratio to the amount of sputum; and diminution of the amount of sputum accompanied by rise in temperature and exacerbation of constitutional symptoms means defective drainage. The sputum, once communication with the bronchus has been established, may be as much as a pint or more in the twenty-four hours, and is usually greenish-yellow or brown with much or little blood. It is nearly always extremely foul at the outset, and its bacterial flora is very varied, since all sorts of bacteria may be found, including bacillus coli, fusiform bacilli, spirochætes and yeasts. On

standing, it separates into the traditional three layers: an upper frothy layer, an intermediate watery one, and a bottom layer of thick pus with elastic fibres, threads of lung tissue and Dittrich's plugs.

Physical signs in the chest are very variable and depend on the size, position and number of abscess cavities. In addition to the signs produced by limitation of movement, there may be dullness, diminished conduction if the abscess does not communicate with the bronchus, or there may be tympanitic resonance surrounded by dullness with cavernous breathing, crackling rales and so forth. If the cavity communicates with the bronchus, physical signs obviously vary according to the fullness or emptiness of the cavity, and there are often signs of consolidation or collapse of adjoining areas of lung. If the abscess is a long way from the surface there may be practically no physical sign except diminished movement.

The radiological picture varies considerably, as might be expected from this brief account of the physical signs. In the early stages the abscess shows up as a dense opacity of the lung, but in the formative period much of the opacity is due to œdema, and the eventual cavity appears as a rule in the centre of the opacity, and is smaller when the œdema disappears and the circumscribed abscess stands out by itself. If the cavity communicates with the bronchus, a fluid level can usually be seen if the patient is X-rayed in the erect position. This fluid level is often made more obvious if the patient is X-rayed in the lateral position as well. Consolidation and collapse of the lung or the appearance of fluid may complicate the picture.

Treatment of pulmonary abscess is, in the main, the treatment of suppuration anywhere on the body, that is, drainage. Drainage can only take place when suppuration has occurred, and before the abscess has formed, postural drainage will be useless and surgical treatment will be fatal. It is a well-known axiom of surgical treatment that inflammation cannot be treated by incision until the local defences are sufficiently developed for an abscess to form. This is more than ever true in dealing with a pulmonary abscess. Operation in the formative period of an abscess is worse than useless; sooner or later the abscess communicates with a bronchus in most cases. Sometimes the abscess is coughed up in one tremendous explosion and the condition heals, but this fortunate conclusion is rare, and as a rule further measures are necessary; the simplest and most effective of these is postural drainage. Abscesses of the apex of the lung, although rare, heal fairly readily because of the natural direction of their drainage; abscesses of the lower lobe are not so favourably placed and the bottom of the bed should be raised high enough for gravity to assist in the evacuation of the cavity; better still, a tilting bed should be used, for very frequently drainage is better when the patient is tilted to one side at the same time as the foot of the bed is raised. The patient often finds out for himself the ideal position for drainage, because he finds that some particular position is followed by the coughing up of large quantities of sputum. His natural tendency to lie in some other position in which he does not cough must be combated if drainage is to take place, and it is better to cough effectively, if painfully, for a short time than to cough ineffectively throughout the whole of the day. Pummelling the affected side of the chest over the abscess sometimes helps to evacuate the abscess if it does not drain readily by other means.

No patient is ever too ill to have postural drainage. A case I saw two years ago illustrates this point. The abscess followed a lobar pneumonia, and when I saw the patient he was desperately ill with a temperature of 104 and a pulse rate of 140 and a respiration rate of about 60. He was terribly frightened, and was propped up with about six pillows, refusing to move or stir because of his dyspnœa and the pain of his pleurisy. He coughed up only a little sputum, and half-hearted attempts at postural drainage failed because of his own terror and the natural timidity of those who had to carry out his treatment. It was decided to do a bronchoscopy, and the patient was placed on a stretcher and carried up a winding staircase to the theatre and placed on the operating-table; at once a fit of coughing occurred, and half a pint or so of foul pus was coughed up—so much so that none was left for aspiration from the bronchoscope. For the next few days his temperature was normal, and the amount of sputum was large, but the lesson had not been properly learnt. Postural drainage was still inadequate, and soon the sputum diminished, the temperature rose, and in a short time the patient was even more ill than before. Again a bronchoscopy was decided upon. The patient was lifted on to the stretcher, and this time nearly a pint of pus was coughed up on the way to the theatre, and the patient made a complete recovery after further postural drainage.

If the abscess does not drain readily by this method, then bronchoscopic drainage must be employed. It must be remembered that frequently the bronchus leading out of the abscess cavity is blocked by œdema of its wall or by exuberant granulations which obstruct its lumen; in such cases only a catheter passed into the abscess cavity can effect drainage. Very good results are

ometimes obtained by bronchoscopic drainage, but I believe that if drainage is free by natural methods, bronchoscopic drainage is unnecessary, and it is not every patient who will tolerate the frequent passage of a bronchoscope. I think the movement and disturbance and the coughing produced by the operation are often more effective in bringing about drainage than is the actual aspiration. Champions of the bronchoscopic method of treatment claim that aspiration through a catheter diminishes the risk of the spread of infection run during postural drainage. I doubt if this is a valid reason, but it is probably better always to make a bronchoscopic examination in the case of a pulmonary abscess in case the abscess is due to an unsuspected foreign body whose removal would lead to rapid cure of the patient, and bronchoscopic drainage should certainly be employed if drainage is not adequate before any other method of treatment is resorted to.

The use of an aspirating needle is not justifiable either for diagnosis or treatment as it carries too great a risk of infection, both to the healthy lung overlying the abscess and to the pleural cavity, while the drainage secured by such a method is inadequate.

I come to a controversial method of treatment, namely, that of pneumothorax. I have not yet made up my mind about this method of treatment. Two or three dramatically successful cases tempt me to try it again; one dramatically unsuccessful case and many recorded by others make one hesitate. Many writers condemn pneumothorax out of hand because of the danger of producing a pyo-pneumothorax, but there is no doubt that it is frequently successful if the abscess is not too close to the surface and if the abscess is an acute one. Successful cases I have had or seen have all had fairly deep abscesses with a short history, a well-defined abscess cavity and little surrounding pneumonitis. The occurrence of a pyo-pneumothorax is a very serious complication and produces an increase in the toxæmia which may well be fatal, but, on the other hand, sometimes drainage of the pleura in these cases is followed by healing both of the abscess cavity and the empyema.

Phrenicectomy is, I think, very rarely of any value in a case of pulmonary abscess, except occasionally as an adjunct to other treatment.

The surgical treatment of an abscess is external drainage. This treatment is not new, since cases have been described since the seventeenth century which have been treated in this way. It is difficult to decide when this method of treatment should be resorted to, but I have mentioned that early operation is, in my opinion, inadvisable, but it is difficult to give a time as a general rule when external drainage should be resorted to; I think, in any case, not before eight weeks from the onset, but one has to be guided by the clinical course and the radiological findings. If a patient is coughing up freely and the constitutional symptoms are diminishing, then external drainage is not necessary; if the reverse is the case, drainage can be resorted to. Operation is more likely to be successful where the abscess is superficial, and these are the ones which, as a general rule, are less likely to discharge into a large bronchus because of their distance from it.

The operation is a simple one and is often done in two stages. The first stage consists of resection of one or two ribs over the abscess. If the pleura is everywhere adherent, an aspiration syringe may be used to localise the abscess, and the abscess is opened by means of a knife or cautery and a drain is inserted. If adhesions are not present when the chest is opened, then they can be created by stitching the pleura or else by the application of an irritant, and the abscess is opened a few days later. There is some risk of hæmorrhage, but this operation is frequently followed by cure and the wound heals in a few weeks; if the general condition of the patient does not improve following this operation, the possibility of there being other unsuspected abscesses must be considered.

Thoracoplasty and lobectomy do not play any part in the treatment of abscess of the lung, although the former operation may be necessary eventually to obliterate the drained cavity. Pyo-pneumothorax complicating lung abscess is best treated by closed drainage through a catheter in the early stages, with drainage by resection later when the more urgent symptoms have abated and the pus and the pleuræ have become thick and the mediastinum anchored.

Much has been claimed for injections of N.A.B. and emetine in cases of pulmonary abscess, but, although they may be an adjunct to treatment, they are no substitute for drainage, and this is true also of treatment by inhalation, which may alleviate some of the symptoms without curing the main cause. Enough has been said in this brief review of treatment to show that every case of pulmonary abscess has to be treated on its own merits; few consecutive cases can be treated alike.

I have emphasised that premature surgical treatment is almost worse than surgical treatment too late, and it must not be forgotten that quite a large percentage of acute cases recover with postural drainage alone, and that even chronic cases are much improved by preliminary postural

treatment, and that a subsequent operation, if it should be necessary, is rendered less dangerous by this treatment which has preceded it. I have several times seen cases of pulmonary abscess cured spontaneously after surgical treatment had been decided on, but before it could be put into effect, and in two cases when I had been asked to induce pneumothorax and there was a judicious delay, the whole condition cleared up and remained permanently cured. Sometimes, however, a cure may be more apparent than real, and a relapse shows that the main condition had not been cured.

Fractures of the Mandible

A Clinical Lecture delivered at Guy's Hospital on Monday, 18th May, 1936, by Kelsey Fry, Esq., M.C., M.R.C.S., L.D.S.

GENTLEMEN,—This afternoon I am due to speak to you about fractures of the mandible. One of my reasons for bringing this subject before you medical students is the appearance of an article in a medical journal recently which rather exposed the ignorance of the profession on the subject of the proper treatment of injuries of the jaw. In the *British Medical Journal* appeared a serious article treating of fractures of the mandible, and the writer says there is so much swelling and œdema in association with the trauma that it is impossible for any dental surgeon to attempt treatment for three weeks, because the mouth is so sore. He advises a wire being passed through the mandible, and extension obtained by means of gadgets over the bed. He says the patient is then comfortable. That, as an attempt to treat a case of fractured jaw, is ludicrous. You will note that that patient had all his upper teeth, and also a large number of teeth in the lower jaw. As we go on with our talk you will appreciate the effect that the number of teeth present has on the methods used, as you need a fixed base to bring the fragments up into position and hold them there, as I shall show you.

That article is what decided me to speak on this subject of fracture of the jaw. It shows there is a lack of co-operation between the medical and the dental professions on the subject of fracture of the jaw, and as, owing to the prevalence of motor accidents, such fractures are common, it is important that the right course of treatment should be carried out.

The general principles of treatment of fractures of the jaw are similar to those concerning fractures of other bones, namely, that the earliest possible diagnosis must be made, and a skiagram of the condition should be taken at once, and again at intervals, so that you may note the progress of the case. The displacement should be reduced and corrected with as little delay as possible, and complete immobilisation must be secured with the fragments in the corrected position. But it differs in the following way: early active and passive movement is not necessary in fractures of the jaw, because you can immobilise the mandible to the maxilla, and there is no necessity for massage, because in swallowing the muscles round the mouth are exercised. So you can immobilise the mandible for six months if necessary, and the patient will still be able to open and close the mouth after the means of fixation have been taken away.

It may appear to you that in simple fracture of the mandible, with the bone so superficial, you should be able to cut down and put a wire through. But that is contra-indicated, because fractures of the mandible, except when they are high up, are nearly always compound. There are teeth in the line of fracture, and wiring of the bone only adds the danger of sepsis, loss of bone, and delayed union. As the fracture runs round the roots of the teeth you must be very careful about sepsis. Another way in which it differs is, that you have a fixed base in the maxilla in all fractures of the mandible which can be used to bring the fragments into position.

Now as to the causes of fracture. There are, first, predisposing causes. I want to insist that there should be the closest co-operation in these cases between the general surgeon and the dental surgeon. A general surgeon who undertakes to operate for multilocular cyst of the mandible without consulting his dental colleague does a wrong thing. Another cause is the presence of an unerupted wisdom tooth, the trouble ensuing when the man receives a blow on the jaw. Another predisposing cause is osteomyelitis; and there, again, there should be co-operation between the two professions. The patient has a tooth extracted, it may be a wisdom tooth, swelling of the face follows, with abscess formation; there is some delay in opening the abscess, and as a result infection spreads to the bone, osteomyelitis of the mandible, and frequently pathological fracture. You will therefore immobilise the fragment so as to prevent fracture taking place.

With regard to the actual causes of fracture, due to blows, as in boxing, or to accidents, these may be either direct or indirect injuries. The latter concern you very much, because they are not so easily diagnosed. A person running a race may

fall on his chin; being aware of what is going to happen he clenches his teeth, and the shock is transmitted to the condyles, which may break. When the patient is unaware of an impending blow on the chin, as in boxing, there will probably occur a fracture of the body of the mandible.

Next with regard to the location of the fracture: the most common site is the molar region, the next commonest is the premolar region, then the condyle; it may be a case of fracture of the body of the mandible and secondarily a fracture of the condyle. If a man has a blow on the chin and he is unaware that it is coming, he will have a fracture if on the near side, at the weakest point; if there is an unerupted wisdom tooth, it will go through there. On the other side it will break in the middle of the bone, in the molar region. If it is a very severe blow, there will be a fracture at the site of the injury.

With regard to the diagnosis of fracture of the mandible, it is usually very simple. There is a history of injury, the patient complains of pain located in some part of the mouth, and inability to open the mouth, or pain on doing so. Probably he cannot close the jaws, the teeth not meeting properly, as you will see when you look into the mouth. If it is a gross injury you will see the back teeth in one plane, and the front teeth in another. You may see bleeding, swelling, and the general signs of a fracture. Fracture of the condyle would be less obvious. When the patient opens his mouth, it will be deflected to one side, the external pterygoid of that side will be rendered ineffective, and therefore the mandible is swung to the affected side. X-rays will confirm the diagnosis, and crepitus will be a confirmatory indication. There are three groups of muscles concerned: the depressors, elevators and rotators. With those muscles in your mind you can diagnose any fracture by the displacement. If there is a fracture in the mid-line which is vertical and not oblique, there is no displacement, because both elevators are working and also the depressors, and they are equal on both sides. With a fracture in the molar region the posterior fragment will be pulled up and in. (See Fig. 1.)

The amount of overlap of the fragments will depend on the degree of obliquity of the fracture. When you examine the mouth of the patient you can tell where the fracture is by the displacement which you see. There is, however, one very important type which you must remember, and that is the double fracture. These are generally oblique, and therefore the two main fragments tend to approximate. The middle one is pulled backwards and downwards, and the main fragments lie in front of it. It is a dangerous type of fracture, owing to the loss of control of the tongue. Many subjects die of it because the falling back of the tongue suffocates the patient before expert aid can be summoned. In these cases forward traction on the tongue is emergency treatment.

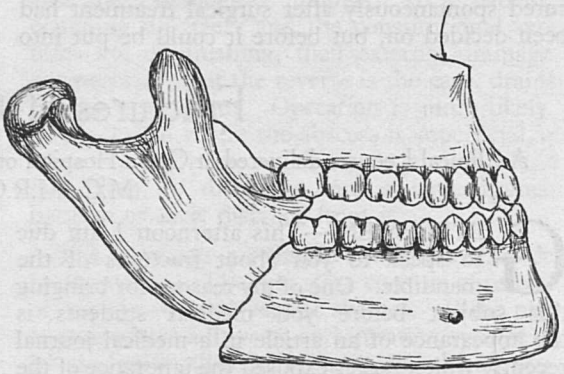


Fig. 1.

After examination the fracture should have been diagnosed, the surgeon or practitioner should have got into contact with the dental surgeon, and should be considering the question of immediate treatment. There is no actual urgency in treatment except in cases of double fracture of the mandible, where every precaution should be taken to have the tongue pulled forwards and held so. In the war we put a stitch in the tongue and fastened it to a button on the uniform, to prevent the tongue sagging back into the larynx when the man was lying down, and it is better for such a patient to walk with his head held well forward to prevent the same accident. These cases seldom have hæmorrhage so severe as to cause death. I have seen a man with a large part of the mandible blown away, and with two or three fingers off, walk a mile after it.

Now with regard to treatment. Treatment of the fracture should be begun as early as possible; the delay which is spoken of in the article in the *British Medical Journal* that I referred to is wrong. After diagnosis there must be an immediate reduction of the fragments and immobilisation until union has taken place. You must also guard against sepsis. Mouths are very septic, with saliva and mucus, and you must keep the patient's mouth clean by irrigation with a Higginson's syringe, using ordinary bicarbonate of soda, which is the best solvent of mucus. You can follow this by the use of antiseptics if you like.

The next question is, are there teeth in the line of fracture? The displacement of the fragments may be controlled by the teeth. There is no question that teeth in the line of fracture are a great source of sepsis and must all be extracted, for the tooth keeps open a pathway for septic material. In many cases the bone was wired in

the early days, but the teeth were left in the line of fracture, and after eighteen months there was no union. The teeth were then taken out, the man was splinted up, the wire came away with the sequestrum, and union took place. It would be incorrect to say that no fractures unite if there is a tooth in the line of fracture, but I know such teeth will be useless and will have to come out at some time. If a tooth is on the posterior fragment it is of value because it is retaining the fragment.

Another way in which you can control sepsis is by submaxillary drainage. If there is a severe injury of the mandible you do not want to wait until sepsis travels down and causes a swelling in that region. It is better to secure immediate submaxillary drainage, gradually reducing the length of the tube until union occurs.

The fourth point is to conserve all loose particles of bone. So often you see a man with a comminuted fracture of the mandible with loose bits of bone, and these you are apt to take out in your desire to clean the wound. That is a very wrong procedure in fracture of the mandible. There is a wonderful power of restoration of growth in the mandible; each fragment forms a centre of ossification, from which bone spreads out in the process of restoring union.

After you have got rid of the sepsis the next thing is to immobilise the fragments. I do not know whether you remember the four-tail bandage; it is the worst thing you can put on to one of these cases, because it pulls the mandible backwards, whereas all the means you employ should have the effect of pulling it forward. You want something which will support the jaw, such as the barrel bandage or the Guy's modification of the Hamilton sling, which consists of webbing. This temporary support of the jaw must be used at the earliest possible moment. It relieves pain and enables the patient to talk, and also gives him a better chance of getting sleep. An elastic support may also be used, and has the advantage of being easily washed, for in these cases there is much dribbling of saliva, making the patient very uncomfortable.

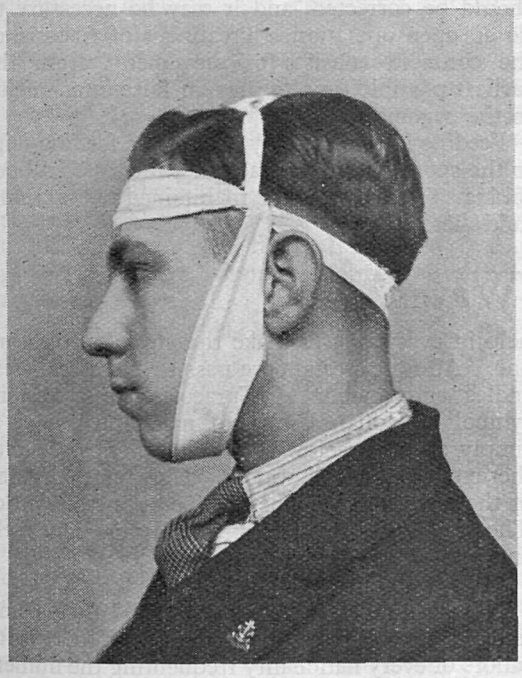


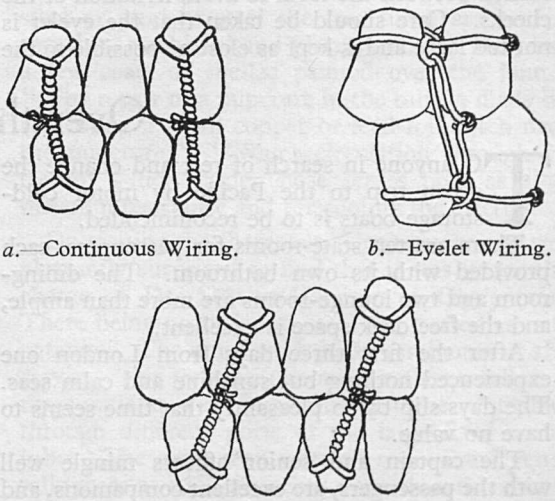
Fig. 2.—The Barrel Bandage.

These are only temporary measures of support. Having diagnosed the fracture, obtained X-rays, and decided which teeth should be removed, place the patient under a general anæsthetic. Care must be taken to control the tongue, a stitch being put through it and maintained until the patient is back in bed. When the patient is thoroughly relaxed the necessary teeth are extracted, and the fracture reduced. It is not always possible to correct the displacement completely, in which case the wires can be gradually tightened to obtain the final result.

There are two methods of immobilising a fracture, one is by means of inter-dental wiring, and the other by dental splints. The advantage of the former is that it can be done immediately and requires no special equipment. The disadvantage, however, is that you must have a sufficient number of teeth present to obtain satisfactory results. Dental splints can be utilised when only a few teeth are present.

How will you wire? By passing a wire around the separate teeth, reducing the fracture and then tightening the wires together to hold the fragments in the corrected position. The illustrations will

Fig. 3.



a.—Continuous Wiring. *b*.—Eyelet Wiring.

c.—Continuous Wiring.

show you the method. This method has the disadvantage that if one of the wires break it will necessitate complete rewiring (Fig. 3). The best way, however, is by eyelet wiring, which is done as follows : Two adjacent teeth are wired together with a small loop between them, and the same is done to two opposing teeth. The two loops are then joined together with a separate piece of wire. Three of these groups of wires are generally used, one in the centre and one on each side of the mandible. Pieces of brass wire, 24 gauge and about 12 inches in length, are supplied by the S.S. White Dental Depot for this purpose. (Fig. 4.) The

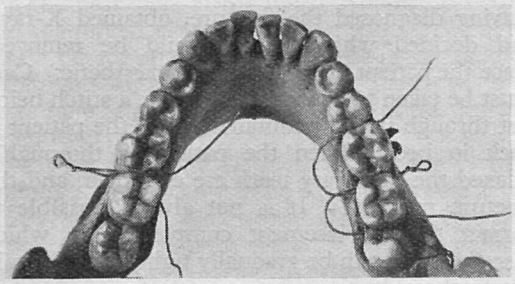


Fig. 4.

wire is first twisted around a dental bur or some small surgical instrument to form an eyelet, and the ends of the wire are then passed from the buccal to the lingual or palatal surface between the selected teeth. One end of the wire is then passed around the posterior tooth, and the other end around the anterior tooth and brought to the buccal surface. One end of the wire is then passed through the eyelet and twisted tightly to the other end. When twisting the wire the first twist should be made by the hands and completed by means of pliers, the ends then being cut short and turned between the teeth to avoid irritation of the cheeks. Care should be taken that the eyelet is not too large and is kept as close as possible to the teeth. When all the groups of wires have been fitted and the patient is in a relaxed condition the displacement is forcibly reduced, and, whilst pressure is maintained from below the mandible, the inter-dental wires are inserted in the eyelets and firmly fixed.

The advantage of this method is that if total reduction of the displacement is not possible at the first attempt, as is often the case, the inter-dental locking wires may be tightened daily until reduction is complete. Again, should one of these wires break, it may be separately replaced, or all the locking wires may be removed for opening

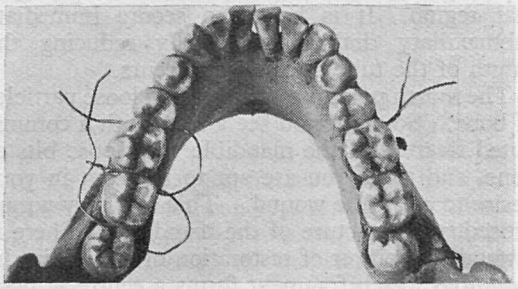


Fig. 4.

the mouth for any purpose without removing the eyelets.

Fracture of the coronoid process is often difficult to diagnose. It is generally due to direct injury, and is often accompanied by a fracture of the zygomatic arch. Any displacement of the arch should be corrected, and it may be necessary to do an open operation. Treatment of fracture of the coronoid consists of movements from the earliest possible time to prevent false attachments to the zygomatic arch.

Feeding is best done by means of a feeding-cup, to the spout of which is added 4 inches of rubber tubing. The patient is maintained on a semi-fluid diet.

Over the Waves

TO anyone in search of rest and change the ocean trip to the Pacific by motor cold-storage boats is to be recommended.

There are ten state-rooms for passengers, each provided with its own bathroom. The dining-room and two lounge-rooms are more than ample, and the free deck space is excellent.

After the first three days from London one experienced nothing but sunshine and calm seas. The days slip by so pleasantly that time seems to have no value.

The captain and senior officers mingle well with the passengers, are excellent companions, and help in every way to make the voyage a pleasant one. After a fortnight we pass through the West Indies and anchor at Curacoa. This western symbol of Holland's ancient maritime rivalry is simply a coral reef with a narrow entrance into the extensive inland waters. Here one sees one of the largest oil and petrol depots in the world. The crude oil is brought over from Venezuela and refined and stored here.

Next we come to Cristobal, half Panama and half American, which is a wide open port with sailors of every nationality frequenting the numer-

ous bars, cafés and night clubs, and its unusually large, crude and variegated red-light district.

From here we pass through the Panama Canal. The trip through is a fascinating one of about nine hours. One does not know whether to marvel more at the triumph of engineering and public health or at the efficiency with which the ship is piloted through the whole way, as if wrapped in cotton wool. The large inland lake made by the damming of the river and the heavy rains reminds one of primæval days, with its surface pierced, as it is, by the gaunt skeletons of dead trees submerged by the waters.

As we pass through the beautiful Pacific outlet, again we see long stretches of bare trees, not unlike fruit-tree orchards in early spring. These are the home of myriads of cormorants, whose droppings give the whitewashed effect to trunk and branches.

Once more we turn south, and finally are piloted up the large tidal river which leads us to the City of Guayaquil. The river surface is studded with islets of green vegetation, many with flowers in bloom. These float up and down with the tides, and at night especially the effect is very weird. The city is infested with rats and plague is endemic. On the Sunday many of the long native dugouts passed us, with the women in gay dresses and umbrellas to protect themselves from the sun, and the men poling their way, standing erect on the stern. From a distance they resembled punts on the Thames. Here one also had the opportunity of handling and examining the famous Indian shrunken heads. Three were of exceptional interest—one an old man whose expression was so natural that one would not have been surprised if he had spoken ; one a young woman, whose hair was unfastened, and the contrast between a luxuriant mass of black hair about 18 inches in length and a head the size of a small orange was indeed startling. The third head was a young man with a half-smile on his face. It seemed a much pleasanter way to live on than ours of dust to dust and ashes to ashes.

A cargo of bananas have been taken on board, the anchor is raised and we once more pass pleasant days until we arrive at Los Angeles. One disembarked. Hence one can continue the voyage as far north as Victoria and Vancouver, or one can disembark to rejoin the boat here on its return.

At San Diego, 120 miles south, one can see the State of California Exposition. It occupies a part of the great natural park which dominates the city. At night some of the lighting effects, especially in parts where palm trees of all kinds abound, are the finest one has ever seen. A big attraction was a professional nudist colony, whose home was a beautiful flood-lighted sunken garden. The women, some quite young and attractive, wore postage stamps and the men shorts. A building devoted to medicine was being furnished, and should any old Guy's men visit there they will probably see familiar pictures and prints of the Hospital. Infantile paralysis is endemic, and at times epidemic, in California. One had the privilege of seeing the results of treatment in a large number of cases of severe grade at a clinic devoted solely to these distressing cases. The remedial work is carried out entirely under water. A large heated pool has submerged tables of various kinds, and by means of a specially designed travelling crane the patient is lifted, together with stretcher top, and lowered on to a table. Daily for half an hour or more the sister works on the paralysed muscles until finally the great day comes when they can float and spasmodically move through the water on their own. From that time progress is rapid. The orthopædic surgeons are keen and skilled craftsmen, and some of their transplantation, especially in abdominal cases, is nothing short of miraculous. One was especially pleased to know that the sister in charge was English and trained in England.

One's chief point of interest, however, was the California Institute of Technology. Here, under the guidance of Charles C. Lauritsen, one of the most brilliant physicists of to-day, one followed the various steps by which the pioneer 1,000,000-volt deep therapy apparatus was evolved. It is of enormous size and is principally housed in a great domed room. Everywhere one sees the triumph of mind over lack of money, and here are a few illustrations in his own words : " In all places, where convenient, ordinary gas pipe and plumbing fittings were used." " In joining two pieces of tubing of same diameter such as glass to steel or steel to steel the two tubes are butted together, a rubber band placed over the joint and a few coats of shellac painted over the joint." " The repair of a puncture in the tube is made by cementing a small copper or lead-foil patch over the puncture." " Water circulation through 75 feet of $\frac{3}{4}$-inch garden hose serves both as a 3-megohm resistance and for cooling the electrode."

On visiting the therapeutic department one was pleasantly surprised to find that it was under the charge of Dr. Stewart-Harrison, a Guy's man. There being no beds, all cases are treated as out-patients. The chief work is on carcinoma of the cervix. The treatment room is rather small, but three patients were being treated at the same time, through different ports of the large fixed metal tube. The cases seen were all recent, and generally were at a much earlier stage than those seen

in the hospital here; the results so far excellent. There seems to be a field for such an apparatus in the treatment of the future. It was interesting also to see in the next building the giant lenses being ground for the great telescope now in course of construction.

In Los Angeles itself one's chief interest was in Dr. Soiland's Clinic, where he and his assistants are using every known method in the treatment of cancer. The Clinic is situated in a skyscraper devoted entirely to the profession. The building is owned by Dr. Soiland, but is apparently a white elephant. An interesting feature is a Common Room, where the physicians and surgeons rush down for a bite of lunch and to whom one is introduced in turn.

Our boat has returned after her northern voyage, now loaded down with Canadian apples and Oregon pears, so once more we pass through the Panama and, after four weeks, reach Liverpool and home.

W. L. W.

Guy's Hospital Nurses' League

A REUNION Garden Party was held at the Nurses' Cottage, Honor Oak Park, on Wednesday, June 24th, 1936. The weather was ideal, and a thunder-storm, which appeared imminent in the early afternoon, passed off before the guests began to arrive.

Lady Bonsor, President, and Miss MacManus, the Hon. Secretary of the League, welcomed the visitors, amongst whom were a number of the Governors and members of the Staff.

Tennis, croquet and clock golf kept the more energetic busy, while the lively strains of St. Dunstan's Band proved a most invigorating stimulus to the reminiscences of many old friends. The garden was looking at its best, with a splendid crop of roses coming into bloom, and the new grass tennis court on the most recently-acquired piece of ground just ready for use.

Altogether a most enjoyable afternoon was spent, and it is hoped that it will become an annual event, which will doubtless prove as popular as the League Dinner.

Correspondence

The Children's Department

To the Editor of the GAZETTE

SIR,—It is a most extraordinary thing that, as your venerable informant showed us through your editorial last week, one of the departments of which the Hospital might most justly be proud is the one always chosen as the scapegoat when needs are, or are said to be, urgent in some other direction.

As one who worked for some two years in the Children's Department I developed a certain sentimental attachment to the little Children's Ward, with its isolated outlook upon the rest of the Hospital across its own lawn. It was a comfort in its demolition to think that at least Guy's would now have in its place a Children's In-Patient Department both worthy of the work done there in the past and the present, and one that would no longer make one ashamed on visits to other institutions at home or abroad.

But if the Dodont's gloomy prognostications are with knowledge, then indeed, despite the recent aid given to several newcomer specialties, the great and important subject of pædiatrics and the work done for it in this Hospital are to be again neglected in what must seem to any visitor a wholly incomprehensible manner. Does not the Hospital need a Children's Ward wherein its Staff, medical and nursing, may be able conscientiously to feel that they are applying modern methods of treatment, and modern methods of investigation, to any number of our ever-increasing local and non-local out-patient *clientèle* that may need it? And does not the Hospital need to be able to keep faith with the incredible numbers of students admitted to the Medical School in recent years—numbers which made anything like adequate practical and theoretical experience in the subject quite impossible in the old Baby Ward? For how many specialties are the Hospital's students of the present day to pay to go elsewhere for their practice?

Again, "little Children's Ward" is capable of a double interpretation. The ward was too small, and so frequently were the cots for many important and interesting conditions with a rather higher maximal age incidence than the first septennium. As a great children's physician was heard to say more than once: "There are eight of them over there propping up the decline and fall, and over here——" And so also of the cot accommodation. (The verbal accuracy of the quotation is not guaranteed.)

There is so very obvious a necessity for a sufficiently large and efficient Pædiatric Ward

with an age limit of at least ten that it robs one of argument in its favour. It becomes difficult to argue in a matter which all but the powers that be have recognised as a flagrant necessity since before the Great War.

Perhaps a little ventilation of the subject in your columns may do good, perhaps not; but at least such ventilation can be used to air constructive suggestions. I would ask whether it is not, in the opinion of Guy's men, past and present, time that the Hospital possessed a Children's Ward with at least 40 cots; a separate portion for infants under one year; rooms for the isolation of patients for the first few days after admission if thought necessary, or throughout their stay; and cots adequate for the accommodation of children up to ten years of age, with the ability to deal with either surgical or medical cases. And should not the ward have its own theatre, kitchens, larders, refrigerator and bath-rooms for both infants and older children? I would also ask whether it is not time in these days when thought is given to aspects other than the purely professional care of the sick, that the patients in the surgical and medical wards of the Hospital should be spared that which is the necessary daily and often nightly experience in their own homes: crying or noisy children. Finally should there not be that much talked of sun-roof?

Public opinion is still a valuable force even in this world of Dictatorships, and perhaps others who may have had the good fortune to work in the Children's Department at Guy's may also help the Dodont to that peace and repose which his venerable age—no, senility—most surely deserves.

The matter is on the knees of the Governors.

Yours, etc.,

F. H. STEVENSON.

Sport

Guy's Hospital Rugby Football Club

FIXTURES FOR SEASON 1936-1937

1936.		*Opponents.*	*Ground*
Sat.,	Sept. 5	—	—
„	„ 12	Trial Game	—
„	„ 19	Catford Bridge	Home
„	„ 26	Coventry	Away
„	Oct. 3	United Services, Portsmouth	Home
„	„ 10	Devonport Services	Home
„	„ 17	Gloucester	Away
„	„ 24	Harlequins	Home
„	„ 31	Old Alleynians	Home
Wed.,	Nov. 4	Cambridge University	Home
Sat.,	„ 7	Old Blues	Home
„	„ 14	Birkenhead Park	Home
„	„ 21	Rosslyn Park	Away
Wed.,	„ 25	University of London	Away
Sat.,	„ 28	Aberavon	Away
„	Dec. 5	Richmond	Home
„	„ 12	The Army	Home
Wed.,	„ 16	United Services, Portsmouth	Away
Sat.,	„ 19	Liverpool	Away
„	„ 26	*Boxing Day*	—
1937.			
Sat.,	Jan. 2	Old Merchant Taylors	Away
„	„ 9	Birkenhead Park	Away
„	„ 16	*International* v. *Wales* —*Twickenham*	
„	„ 23	Coventry	Home
Wed.,	„ 27	Cambridge University	Away
Sat.,	„ 30	Gloucester	Home
„	Feb. 6	Devonport Services	Away
Wed.,	„ 10	Royal Air Force	Home
Sat.,	„ 13	Old Leysians (Morning)	Away
„	„ 13	*International* v. *Ireland* —*Twickenham*	
„	„ 20	Old Millhillians	Away
„	„ 27	Old Cranleighans	Home
„	Mar. 6	Aberavon	Home
„	„ 13	Bedford	Away
„	„ 20	Old Paulines	Away
„	„ 27	*Easter Saturday*	—

Lawn Tennis

Guy's v. Oriel College, Oxford

GUY'S played Oriel College, Oxford, on Saturday, June 6th, at Oxford, and lost by 1 game to 5 games.

Rain stopped play after only six games had been played; of these, Guy's could only win one, and the standard of play was not of the best, possibly owing to the bad climatic conditions. However, the trip there and back by car afforded an enjoyable afternoon.

Teams.—

Guy's	*Oriel*
H. R. Harley and J. Stoddart	A. Albers and S. A. Ali
W. Hughes and W. Zorab	P. Cooper and F. Hand
W. O. Southwell and J. M. French	F. Gauld and E. Everett

Guy's v. Magdalen Park

GUY'S played Magdalen Park on Sunday, June 7th, at Honor Oak Park, and lost by the odd match.

Play on grass courts was prevented by previous rain, and an ominous-looking morning gave place to a relatively pleasant afternoon. Both teams were weakened, the visitors by a Cup match, but the match was a close and enjoyable one. Magdalen Park won by the odd match, which might have had a different result had Hughes not hurt his foot. Stevens and Zorab played especially well.

Guy's	*Magdalen Park*
H. R. Harley and R. S. Stevens	R. Gunn and R. Watts
W. Hughes and W. Zorab	H. Jones and E. Locke
R. G. Chapman and O. S. Clarke	R. Pickard and N. Gunn

Guy's v. Bart.'s

THIS Senior Cup match was played at Honor Oak Park on Thursday, June 18th. A wet morning was followed by a hot, humid afternoon, which sapped the energy. The grass courts were playable in spite of the heavy rain during the morning.

Guy's was weakened by the absence of F. J. Piercy; W. Hughes took his place. The teams were :—

Guy's.—H. G. N. Cooper, K. Chartihavanij, E. P. O. Watson (Capt.), H. R. S. Harley, R. S. Stevens, W. Hughes.

Bart.'s.—E. Corsi, W. K. Fewen, P. J. Hardie, G. L. Way, R. C. Witt, J. W. B. Waring.

Guy's won five of the six singles. The results were as follows :—

H. G. N. Cooper beat E. Corsi, 6—2, 7—5.
K. Chartihavanij beat W. K. Fewen, 6—0, 6—2.
E. P. O. Watson beat P. J. Hardie, 6—1, 6—4.
H. R. S. Harley beat G. L. Way, 6—2, 6—3.
R. S. Stevens beat R. C. Witt, 6—1, 6—3.
W. Hughes lost to J. W. B. Waring, 2—6, 4—6.

E. Corsi played very well in the second set against H. G. N. Cooper, who had to reduce a 5—2 lead before going out at 7—5.

Doubles

H. G. N. Cooper and H. R. S. Harley :
Beat E. Corsi and W. K. Fewen, 6—2, 7—5.
Beat P. J. Hardie and G. L. Way, 6—2, 6—4.

K. Chartihavanij and E. P. O. Watson :
Beat P. J. Hardie and G. L. Way, 6—4, 6—1.
Beat R. C. Witt and J. W. B. Waring, 6—3, 6—4.

R. S. Stevens and W. Hughes :
Lost to E. Corsi and W. K. Fewen, 3—6, 6—8.
Lost to R. C. Witt and J. W. B. Waring, 4—6, 6—8.

The third round of doubles was not played, as the result of the match was decided by the singles and the first two rounds of doubles.

Guy's won by 9 matches to 3.

H. R. H.

Water Polo

GUY'S v. BART.'S

ON Friday, June 5th, we met St. Bartholomew's Hospital in the Inter-Hospitals' Water Polo League. Our opponents were unfortunate to be without R. J. C. Sutton, the Plaistow S.C. and England centre-forward. We, on the other hand, were at full strength.

The game started at a very fast pace. Marking was keen, and neither side had a chance to score. After two minutes, however, J. Smit received a good pass and shot a goal from close in. We scored again when A. McCall broke through and passed to S. Vorster.

Bart.'s then began to attack desperately and, snapping up a loose ball while our defence was out of position, they reduced the lead, T. O. McKane scoring. Just before half-time, Smit obtained another goal, but this was neutralised when J. Newbold scored for Bart.'s. At half-time the score was 3—2 in our favour.

In the second half we defended the deep end, and hence had to mark more closely. K. Titford held J. Newbold extremely well, and thus kept Bart.'s chief scoring factor out of action. From a free throw T. Weston passed to J. Smit, who scored, and the same player brought his total to four goals when, about a minute later, he completely outwitted his opponent and swam the ball right to the goal before shooting. Towards the end, J. Newbold scored for Bart.'s, to bring the score to 5—3 in our favour. There was no further score.

The team are to be congratulated on being the only team to beat Bart.'s in a Cup match since they were beaten by Guy's in 1928.

The League will now be decided on goal average, since Guy's, Bart.'s and St. Mary's have equal points and each has one more game to play.

Cricket

Senior Cricket Cup

Guy's v. St. Mary's

GUY'S were beaten by St. Mary's by 146 runs on the 9th of June at Wembley. St. Mary's Hospital, on winning the toss, sent in G. G. Shneerson and R. W. H. Morrison to face the bowling of W. Wylde from the top end and G. O'Gorman, who was put on at the other end. Runs came at a good pace at once, but, with the score at 22, Morrison hit out at a full pitch from O'Gorman and was bowled.

A stand was then made between Shneerson and H. D. Cockburn, and F. W. Rushby, C. L. T. McClintock and S. M. Whitteridge were all tried in an effort to break the partnership.

With the score at 81, Wylde, who had been inclined to over-run himself bowling down the hill and bowl no-balls, was given a try at the bottom end. Immediately he began to bowl really well, securing the wickets of Cockburn, D. S. Gideon and H. G. Owen-Smith, who was caught by Brown at the wicket for five, to the accompaniment of an uproarious appeal from everyone, including the man fielding in the deep on the leg side.

With the score 89 for 4, things began to look rosy for Guy's, but at this point Shneerson, who had been batting confidently, was missed twice, and he and H. Percy remained undefeated when lunch was taken, the score being 143 for 4.

Shortly after lunch Shneerson completed a very good century, but with his score at 129 he was bowled by Rushby, the score standing at 204. O'Gorman was then put on at the top end and got in amongst the tail after Percy had been caught in the deep by Whitteridge for a very useful 47. The score eventually reached 279, O'Gorman returning an analysis of 5 for 46.

With 35 minutes to go before tea, G. M. A. Brown and T. D. Ridsdale opened the batting for Guy's. With the score at 10, however, Brown was bowled in attempting to cut a straight ball, and tea was taken with the score 20 for 1.

Guy's now had the unenviable task of scoring 250 runs in 135 minutes against the bowling of G. G. Shneerson and H. G. Owen-Smith. T. D. Ridsdale and G. O'Gorman batted confidently, but with the score 62 O'Gorman was caught at mid-off for 31 and Ridsdale was bowled by Owen-Smith at the same total.

With 220 runs to get in less than two hours Guy's began to concentrate on saving the game. J. A. L. Leeming and L. G. Morey indulged in defensive cricket until at ten minutes to seven Leeming was caught and bowled by Owen-Smith for 32, the score being 112 for 4. Three runs later Morey was deceived by Owen-Smith's "wrong-un" and was out leg-before.

Guy's, however, still had a good chance for, with half an hour to go, five wickets still remained to fall. But a collapse ensued, the best wicket falling at the third ball of the last over, and St. Mary's had won by 146 runs. Shneerson took 4 wickets for 20, and Owen-Smith 5 for 46.

Scores.—St. Mary's Hospital, 279 (Shneerson, 129; Percy, 47).

Guy's

G. M. A. Brown, b. Taylor	3
T. D. Ridsdale, b. Owen-Smith	20
G. O'Gorman, ct. Morrison, b. Shneerson	31
L. G. Morey, l.b.w. Owen-Smith	14
J. A. L. Leeming, ct. and b. Owen-Smith	32
P. H. Birks, l.b.w. Shneerson	11
S. M. Whitteridge, l.b.w. Shneerson	1
T. J. M. Lowry, b. Owen-Smith	2
C. L. T. McClintock, b. Owen-Smith	2
F. W. Rushby, b. Shneerson	0
W. Wylde, not out	0
Extras	17
Total	133

Guy's v. Olinda

GUY'S drew with Olinda at Walton-on-Thames on June 6th, the match being spoilt by rain. G. M. A. Brown decided to bat on winning the toss for Guy's.

Against good bowling on a wicket which took spin, T. D. Ridsdale and G. O'Gorman were soon out. Brown was then joined by L. G. Morey, both being not out at the tea interval, with 110 on the board. After tea, Morey was soon out, forcing the pace for 47, and Brown declared with the score at 150 for 5, himself being undefeated with 65.

Olinda having scored 50 for 3 were forced to retire to the pavilion by rain, where we all remained throwing darts and shoving half-pennies until, tiring of these pastimes, we boarded the bus for home.

Scores.—Olinda, 50 for 3 wickets.

Guy's

G. M. A. Brown, not out	65
T. D. Ridsdale, ct. Walker, b. Constable	8
G. O'Gorman, ct. Smith, b. Constable	10
L. G. Morey, cy. Morris, b. Poupart	47
J. A. L. Leeming, b. Poupart	1
T. J. M. Lowry, ct. and b. Poupard	7
Extras	12
Total for 5 wickets	150

P. H. Birks, A. D. Willis, C. L. T. McClintock, F. W. Rushby and W. Wylde did not bat.

Guy's v. Petworth Park

GUY'S beat Petworth Park on Wednesday, 17th June, by 60 runs. L. G. Morey captained the Guy's team in the absence of G. M. A. Brown, and A. D. Willis, T. D. Ridsdale and J. A. L. Leeming also being absent, trials were given to A. M. Platt, O. G. Lane and H. A. Lomas.

Guy's won the toss, and G. O'Gorman and A. M. Platt opened the innings, but three wickets had fallen with 60 on the board. P. H. Birks, who had been batting well, was then joined by T. J. M. Lowry, Birks being first out after making 45. Lowry continued to hit lustily, being ably supported by O. G. Lane, Lowry eventually being caught for 42. With the score 201 for 8 the innings was declared, Lane being undefeated for 36.

Petworth in batting lost wickets at regular intervals until a stand was made with the score at 62 for 4. The captain, E. Price, attacked the bowling strongly, hitting nine 4's and two 6's in his innings of 54.

Morey then put himself on and took the last four wickets in three and a half overs for seven runs, the innings closing at 141.

Scores.—Petworth Park, 141 (E. Price, 54; L. G. Morey, 4 for 7; C. L. T. McClintock, 3 for 20).

Guy's

G. O'Gorman, ct. Parvin, b. Greest	18
A. M. Platt, ct. Taylor, b. Greest	6
P. H. Birks, ct. Quas, b. Stevens	45
L. G. Morey, b. Chandler	12
T. J. M. Lowry, ct. Chandler, b. Terry	42
O. G. Lane, not out	36
F. D. Stanford, b. Stevens	0
H. A. Thomas, run out	16
C. L. T. McClintock, b. Price	4
Extras	22
Total for 8 wickets	201

F. W. Rushby and W. Wylde did not bat.

Hospital Information, etc.

Notice

PRIMARY FELLOWSHIP COURSE

A Combined Course in Advanced Anatomy and in Advanced Physiology will be held in common with St. Bartholomew's Hospital Medical College and St. Thomas's Hospital Medical School, for the October, 1936, Examination, to which only Students and Post-graduates of the Schools concerned will be admitted.

The Classes will meet as follows :—

St. Bartholomew's Hospital.—July 13th to July 31st inclusive, on Mondays, Wednesdays and Fridays. Anatomy, 2 p.m. to 3.30 p.m.; Physiology, 3.30 p.m. to 4.30 p.m.

Guy's Hospital.—September 2nd to September 21st inclusive, on Mondays, Wednesdays and Fridays. Anatomy, 2 p.m. to 3.30 p.m.; Physiology, 3.30 p.m. to 4.30 p.m.

St. Thomas's Hospital.—September 23rd to October 12th inclusive, on Mondays, Wednesdays and Fridays. Physiology, 2 p.m. to 3 p.m.; Anatomy, 3 p.m. to 4.30 p.m.

Guy's men wishing to join the Course should send in their names to the Dean as soon as possible.

T. B. JOHNSTON,
Dean.

Pass List

SOCIETY OF APOTHECARIES OF LONDON.
FINAL EXAMINATION.
June, 1936.
Medicine and Forensic Medicine.
J. M. Lea.

Papers by Guy's Men

J. C. Colbeck. Investigations on the occurrence of spirochæta pseudo-ictero hæmorrhagica in earth. *Zeit. f. Immunitatsforschung*, 1936, lxxxvii, *Heft* 3, 4; p. 213.

Nils Eckhoff. Hand infections. *Lancet*, 1936, i, 1425.

L. Forman. The rosacea-like tuberculide. *Brit. Jour. Dermat. and Syphilis*, 1936, xlviii, 299-311.

H. W. Barber. Multiple leiomyomata. *Proc. Roy. Soc. Med.*, 1936, xxix, 919; Sect. Dermat.

G. B. Dowling. (1) Fox-Fordyce disease; (2) ? Acrodermatitis chronica atrophicans (Herxheimer). *Ibid.*, 919; Sect. Dermat.

D. W. C. Northfield and Another. Third nerve palsy. Aneurysm of posterior communicating artery verified by arteriography. Ligation of internal carotid. *Ibid.*, 958; Sect. Ophthalmol.

M. J. McArdle. Wilson's disease with Kayser-Fleischer ring. *Ibid.*, 961; Sect. Ophthalmol.

R. D. Gillespie. Psychological factors in asthma. *B.M.J.*, 1936, i, 1285.

Changes of Address

W. H. Bradbeer, "Rialto," Higher Erith Road, Torquay. *Torquay* 2679.

C. S. Henderson, L.D.S., 50, Abbotswood Road, Streatham, S.W.16. *Streatham* 7096.

Births

PALMER.—On June 10th, 1936, to Millicent Marian (née Lee), wife of Dr. Geoffrey Blake Palmer, Mental Hospital Dept., Auckland, New Zealand—a son.

Marriage

BLAZEBY—CRUTCHLEY.—On June 29th, 1936, at St. Martin-in-the-Fields, London, Henry Blazeby, M.R.C.S., L.R.C.P., elder son of Mr. and Mrs. Blazeby, of Norwich, Norfolk, to Maryleigh, only daughter of Mr. and Mrs. Leigh Crutchley, of Altrincham, Cheshire.

EDS. { M.A.P. / A.G.W.H.

GUY'S HOSPITAL GAZETTE

A Journal of Medicine, Surgery, Dentistry and Hospital News.

PUBLISHED FORTNIGHTLY.

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THE APPEAL

"GOLD digging no longer served as a play game for the gentleman and the amateur; the greater number of those who toiled at it were work-tried, seasoned men. And yet, although it had now sunk to the level of any other arduous and uncertain occupation, and the magic prizes of the early days were seldom found, something of the old, romantic glamour still clung to this most famous goldfield, dazzling the eyes and confounding the judgement. Elsewhere, the horse was in use at the puddling-trough, and machines for crushing quartz were under discussion. But the Ballarat digger resisted the introduction of machinery, fearing the capitalist machinery would bring in its train. He remained the dreamer, the jealous individualist; he hovered for ever on the brink of a stupendous discovery."

It would be hardly an over-statement to say that the Hospital, like the bubble from which it sprang, is broken; for years the administrators have toiled earnestly, and they have become work-tried, seasoned men. Their occupation has been arduous in its effort and uncertain in its result, and the magic prizes of former days have been seldom found. And we, as did long ago the diggers on the fields of Ballarat, have resisted the introduction of machinery, fearing the consequences that State subsidies might involve. We have jealously guarded our individuality; remaining dreamers, we have hoped for the miracle.

There is in our attitude, perhaps, something of the obstinacy of the patient, more frequently encountered than one might think, who will not go to the Almoner; something of the jealous pride with which the poor keep themselves from the workhouse, a reluctance lest some fraction of the individuality be lost, lest, by even ever so little, the individual should lose its oneness and become but a unit in a greater whole. So we, of this most famous Hospital, will not willingly be merged into some State-controlled institutional enterprise, and our generation, into whose hands the charge of maintaining this great work has fallen, is reluctant that we, in failing health, should accept such charity as may lead to our submersion by an alien authority, to our government, perhaps, by foreigners who may come among us, to our becoming, it might be, a marionette of the Ministry of Health.

Now, it may be, as one or two letters that have been received by the Appeal Committee would suggest, that there is much that is bad in this attitude. We will content ourselves with saying that it seems to us that there is also much that is good. We speak of the Hospital as "our Hospital," not because we have any proprietary right, but because we are of it, and are fond of it, and understand it, and so it is ours to us. And are we willing that the tentacles of the State should, while supporting, crush us? Are we willing that some new authority should come and say that this shall be done and that this shall not be done, that the red tape should extend from Westminster to Southwark?

The opinions that have been lately expressed in our paper, a correspondent remarks, have been of a very liberal character. We have had our little differences, and a lot of people have not liked them. But quarrelling, as Paget Toynbee said in a brilliant phrase, is the luxury of security, and at such a time it is well that little differences should be left aside. For now we are concerned with no one part of the Hospital, with no Children's Department nor College, nor Surgical Block, but with the Hospital as a whole. We feel that the welfare of Guy's hangs on the moment.

The appeal was launched on July 16th. We are out for gold; we must have half a million pounds.

The Appeal is an enormous undertaking. A special staff has had to be organised, with special offices in the charming Georgian row on the northern side of St. Thomas's Street. The first step has long since been undertaken, which was the gathering of names of possible subscribers. A hundred thousand names have been received, and a hundred thousand people will be circularised. A booklet, not inelegantly designed, has been sent out over England, in which the needs of the Hospital are made plain to all who care to read.

Uppermost in everybody's mind will be the necessity for reconstruction of the Surgical Block, a building of surpassing architectural charm which is unique in the hospitals of London. But it has served its purpose for two hundred years, and though we pray that the front quadrangle and façade will be preserved, it must inevitably be recognised that the building is, in these days, quite inadequate to form half of one of the largest hospitals in London.

But before it is possible to establish a new Surgical Block it is essential that we should be in a position to equip it with an adequate nursing staff. Therefore, lest we build the tower before we count the cost, there must be additions to the Nurses' Home. It is not, perhaps, realised that of the 489 members of the nursing staff 84 have to be housed outside at varying distances and at practically double the cost. It is also essential, though less obvious to the uninitiated, that there should be accommodation for the increased number of wardmaids that such reconstruction will demand.

These three propositions, then, cannot be considered apart from one another. That which will appeal most to the public, no doubt, is the reconstruction of the Surgical Block. There should be operating theatres on every floor; it should no longer be necessary for patients to be conveyed such considerable distances to and from their operations, nor should patients in those wards on the ground floor be submitted to the rigours of a passage through the open air. Those strange garrets under the roofs, Patience and Samaritan and Evelyn, which, we cannot help having noticed, are never shown to our American visitors, and in which the roof is so low that sometimes the patients cannot even be nursed in the positions which their illnesses may demand, should no longer have to be used. The constant danger of fire will be less alarming when the old and highly inflammable wooden floors have been replaced by fireproof materials. There should be chutes for dirty dressings and garbage, without the present necessity for the constant storage of refuse in bins. There should be a rearrangement of the wards relative to the kitchens and sanitation; there should be provision of refrigerators.

The Children's Ward may, perhaps, be the next reform to catch the public eye. We have argued over this so often in these columns that it remains only to say that there should be proper accommodation for surgical children's cases; the presence of children in a ward primarily devoted to adults is fair neither to the former nor to the latter; that there should be increased accommodation also for medical pædiatric cases, that there should be facilities, such as do not exist in any form at present, for the prevention of cross-infection, and exposure to sunlight.

The rebuilding of the Dispensary is also mentioned in the appeal booklet, which brings to light the astounding fact that patients have to wait, on an average, an hour and a quarter to obtain their medicines alone, apart from any waiting before they are seen by the doctor. A mere glance at the Dispensary, a shambles of bottles in a few square feet of space, where the dispensers seem always to be fighting against fearful odds of time and inaccessibility, is enough to make one realise the necessity of rebuilding, apart from the appalling fact that ill people should have to spend such periods standing in a queue before they can get such medicines as are prescribed.

Less melodramatic are the suggestions that we should reduce our debt, and that, for greater efficiency of staff-work and therefore economy in our internal administration, the Counting House and Offices should be rebuilt. But there seems something a little electric about the question of reducing debt, when we learn that against our annual expenditure of one hundred and ninety-eight thousand pounds odd the sum of twenty-two thousand pounds only is received from voluntary gifts, which, together with our assured income, means that the Hospital is run at a loss of about eight thousand pounds a year.

So much for the booklet, the issue of which has just been made to all old Guy's men and women. A further scheme has been devised by the organising secretary, by which a book of blank cheques has also been sent out, made payable to the Treasurer of the Hospital, and crossed through the Hospital Bank. These can be produced on the approach of any likely subscriber, who it is thought, with a honeyed word, might be persuaded to fill the blanks. It will be interesting to see what results may accrue from this experiment; there are, perhaps, great possibilities in what may at first seem a rather alarming method of approach, and it is very much to be hoped that, in the neces-

sity of the cause, people will be able to overcome their natural diffidence and to make use of the ingenuity of the idea.

Apart from these schemes, there is to be extensive advertising. The press, from *The Times* to the *Daily Herald*, from the society, sportin' and illustrated papers to *Blackwood's Magazine*, from the *Spectator* to the *Investors' Chronicle*, from the *Drapers' Record* to the *Brewers' Journal*, from the *Jewish Chronicle* to the *Church Times* and the *Universe*, from the *Methodist Record* to the *Scotsman* and the *Book of the Braemar Gathering*—all these will print notices of Guy's ; there will be hoardings over London.

We have appealed to the public only three times in our history. Our endowments were enough to meet our expenditure until the end of the last century. Then came two appeals, and the third was eleven years ago. This last was especially unfortunate in coinciding with the Appeal for the Restoration of St. Paul's Cathedral. The impending danger to this great national monument, though, we feel, a cause no less worthy than our own, not unnaturally resulted in considerable sums of money being diverted from our coffers. At the moment there is no such rival claim.

It is in the belief that a great crisis in the history of the Hospital has now been reached that we would solicit from our every reader his efforts towards the success of this appeal. Without help it might be that we could struggle on for a few years longer ; without help wards will be closed down, gradually, perhaps, at first, but one after another. The Borough, which for two hundred years has looked upon us as a refuge, will be able to turn to us no longer, and it is the logical conclusion that one of the great teaching centres of medicine will be lost, that the profession, like the poor, will be poorer, though it is possible that if the generosity of the public fail, the generosity of the Government might enable us, after the lapse of a year or two, to reopen our doors as a unit of the great medical service of the London County Council, to take our place, as is our geographical position, between the two infirmaries of Brook Street, Lambeth, and St. Olave's, Bermondsey.

Treatment of Diabetes

Based on a Clinical Lecture given at Guy's Hospital by Dr. J. J. Conybeare

IN the treatment of diabetes, either with or without insulin, three general principles must be fulfilled :—

1. The patient must be given a diet which is adequate in caloric value to enable him to carry on a useful and active life and yet avoid over-nutrition.

2. His diet must be so balanced in regard to content of protein, carbohydrate and fat that he does not develop ketosis.

3. The diet must be so arranged that it conforms as closely as possible with that of normal individuals.

As regards the first of these principles, it is obvious that the caloric requirements of individuals must vary widely, depending on their age, sex, size and occupation. Infants and children require diets of a relatively high caloric value to allow for growth as well as for the normal metabolic requirements. Women need about 10 per cent. fewer calories than do men. With increasing age, caloric requirements decrease. Persons engaged in heavy manual work require larger diets than those in sedentary occupations. The terms "basal" and "maintenance" diets are often used. A "basal" diet is one which will provide an adequate number of calories for a person at complete rest ; a "maintenance" diet is one containing sufficient calories for an ordinary active life. A "maintenance" diet contains about 30 per cent. more calories than a "basal" diet. Many methods have been devised for the calculation of "basal" diets in individuals of varying age, sex, height and weight. The "basal" caloric requirement varies more with the surface area of the body than with the actual height or weight.

From a practical point of view, however, the "maintenance" diet is of more importance, as the diabetic must be able to lead a life of unrestricted activity. For adult patients it is generally sufficient to allow 30 calories to each kilo of body-weight. Thus between the ages of 20 and 50 the following figures may be regarded as adequate for an ordinary sedentary life :—

Weight, 10 stones, caloric requirements, 1,900.
" 11 " " " 2,100.
" 12 " " " 2,300.

For female patients, 5 to 10 per cent. of the calories may be deducted.

Needless to say, the nutritional state of the patient will have an important bearing on the caloric content of the diet. If the patient be

emaciated, the diet must be relatively high, whereas in a diabetic already much overweight a lower diet is advisable.

As a check upon the caloric value of the diet a careful record of the patient's weight should be kept from week to week. A steady and continued increase in weight, except in emaciated persons, is most undesirable, while a steady loss of weight indicates in most cases that the diet is too low.

The second general principle is that the patient should be given a diet on which he does not develop ketosis. Fortunately, with the aid of insulin it is now possible to allow every diabetic sufficient carbohydrates in relation to the quantity of fat in the diet to prevent the formation of ketone bodies. There has been much division of opinion as to what amount of carbohydrate should be allowed. In the early days of insulin treatment carbohydrate was often restricted to 60 grammes a day, or even less. Undoubtedly this amount is quite inadequate, and a diet containing so small an allowance of carbohydrate is not only unpalatable, but renders the patient liable to ketosis. At the present time it is very seldom that a patient, who is taking insulin, is allowed less than 100 grammes of carbohydrate a day. A number of physicians, notably Rabinowitch, prefer to give a far higher ration of carbohydrate. Even as much as 350 grammes per diem is sometimes ordered. If the first principle of diabetic treatment—the avoidance of over-nutrition—is to be maintained, these very high carbohydrate diets must be accompanied by a drastic restriction of fat, so much so that the diet becomes extremely unpalatable. To take an example: Suppose that the patient is to have a diet with a total caloric value of 2,000 calories; if he eats 300 grammes of carbohydrate this produces 1,200 calories; protein (100 grammes) produces 400 calories; thus there is only 400 calories left to be provided by fat, and as one gramme of fat produces 9 calories, the total available fat would be only just over 40 grammes.

When it is remembered that all meat, most fish, eggs and milk contain considerable amounts of fat, it is obvious that so drastic a restriction of fat is impossible. Moreover, the ingestion of large amounts of carbohydrate produces an irresistible desire for a proportionate amount of fat. The ultimate result of a really high carbohydrate diet is that the patient takes not only his carbohydrate, but, in addition, a large amount of fat. This means that he is taking a diet containing far more calories than it should, body-weight increases and he becomes obese—the worst thing that can befall a diabetic.

Fortunately a middle course is available. A diet containing between 120 and 140 grammes of carbohydrate allows a reasonable ration of starch-containing foods such as bread and potatoes, and there is no necessity for the patient to deny himself fat-containing foods such as bacon and ham, salmon, eggs, butter and cream.

The amount of protein in the diet must be adequate to replace the constant breakdown of tissue protein. On the average this should be in adults about one gramme of protein to each kilo of body weight. This would allow about 70 grammes of protein daily for an adult of average build. Probably no harm is done if this is increased somewhat, especially in those leading active and energetic lives, but in no case should it exceed 100 grammes. High protein diets tend to render stabilisation with insulin difficult. With children and adolescents far larger amounts of protein are required to allow for growth.

The third general principle in the construction of a diabetic diet is that it should conform as closely as possible to the type of diet eaten by healthy persons. This not only saves expense and trouble in the household, but it enables a diabetic to play his part in social life and prevents the development of an inferiority complex. Even a severe diabetic with adequate insulin no longer needs to take special diabetic foods.

Bearing in mind what has been said above, we may now proceed to consider the treatment of patients suffering from diabetes. However obvious the diagnosis may be, it is most important to make a thorough physical examination before the institution of treatment. This may reveal the presence of other pathological conditions such as tuberculosis, arterio-sclerosis and heart disease, cholecystitis or gallstones, focal sepsis in teeth or tonsils, all of which have a bearing on the treatment of the diabetes.

Needless to say, the line of treatment to be adopted in individual cases will vary with the severity of the disease, and the first question which usually needs decision is whether the patient should be started on insulin at once or whether dietetic treatment alone should be tried to begin with. There are three indications for starting insulin at once: (1) Coma or incipient coma; (2) the presence of a definite ketosis as indicated by a positive ferric chloride test; (3) complications such as phthisis or the necessity for a surgical operation. If none of the above conditions be present, it is usually justifiable—except perhaps in infants and children—to test the patient's reaction to under-nutrition diets. Starvation is never necessary, as it not only submits the patient to unnecessary hardship, but it also often produces ketosis, as the patient during starvation is really living mainly on his own body-fat. Below are given three test

diets containing respectively about 800, 1,100 and 1,500 calories. In all of them the fat is sufficiently restricted to inhibit ketosis. The patient should be first of all placed on No. 1 diet and its effects noted on the excretion of sugar over a period of five to seven days. If on this relatively low caloric diet sugar does not either disappear or become very greatly diminished, it is obvious that insulin will be required to enable the patient to take a maintenance diet. During the period of the test, specimens of urine should be obtained four times a day, and the results carefully recorded on a chart such as that given on the following page. Such a chart enables the progress of the case to be seen at a glance.

If on diet No. 1 the patient becomes sugar-free, he may be put on to No. 2, and later No. 3, provided he remains sugar-free. Later the diet may be built up with further gradual additions of carbohydrate and fat in equal amounts until a maintenance diet is reached.

Quite apart from the dietetic treatment of diabetes, careful attention must be paid to the general health of the patient, particularly as

DIABETIC TEST DIETS

No. 1		No. 2		No. 3	
		Approximate Food Content			
Protein	50 grms.	Protein	65 grms.	Protein	70 grms.
Carbohydrate	60 „	Carbohydrate	80 „	Carbohydrate	90 „
Fat	40 „	Fat	60 „	Fat	95 „
Calories	800	Calories	1,100	Calories	1,500
Breakfast		*Breakfast*		*Breakfast*	
1 egg		½ grape fruit or 1 small orange		1 oz. oatmeal (dry weight)	
Tomatoes		1 egg		2 oz. cream	
2 oz. milk		1 oz. bacon		1 egg	
1½ oz. bread		Tomatoes		1½ oz. bacon	
		2 oz. milk		Tomatoes	
		1 oz. bread		2 oz. milk	
				1 oz. bread	
Lunch		*Lunch*		*Lunch*	
2 oz. meat or fish		2 oz. meat or fish		1 oz. meat or fish	
Green vegetables (5 per cent. group)		Green vegetables (5 per cent. group)		Green vegetables (5 per cent. group)	
1 small orange		½ oz. cheese		½ oz. cheese	
		1 oz. bread		1 oz. bread	
				½ oz. butter	
Supper		*Supper*		*Supper*	
Clear soup		Clear soup		Clear soup	
2 oz. meat or fish		2 oz. meat or fish		2 oz. meat or fish	
Green vegetables (5 per cent. group)		Green vegetables (5 per cent. group)		Green vegetables (5 per cent. group)	
1 oz. cheese		3 oz. potatoes (boiled)		3 oz. potatoes	
1½ oz. bread		1 small orange		1 small orange	
Coffee (black) or tea		1 egg		1 egg	
		Coffee		Coffee	
		1 oz. cream		1 oz. cream	

Notes.—The vegetables and fruits in the 5 per cent. group may be taken as desired, as their food value is low. All other food should be carefully weighed, until the patient has become experienced in estimating weight. Clear soup, tea, coffee, have no food value and may be taken as desired. No alcoholic beverages and no special diabetic foods may be taken without the doctor's permission.

URINE CHART

The urine should be tested four times daily with Benedict's qualitative solution and the results charted as follows :—

Blue and clear	O
Green and turbid	+
Yellow and turbid	++
Red-brown and turbid	+++

Insulin		Date	Early morning specimen	Noon specimen	6.0 p.m. specimen	10.0 p.m. specimen	Notes

regards focal sepsis. It is abundantly clear that in the presence of an infection insulin, both endogenous and exogenous, works inefficiently. The teeth should be thoroughly overhauled as early as possible, and any which may be septic removed. If the tonsils show signs of chronic inflammation a tonsillectomy should be performed. Elderly diabetics should pay particular attention to the feet; these should be washed daily, carefully dried, and sprinkled with boracic powder. Shoes must be large and not rub the toes. Neglect of these precautions increases the liability to gangrene. The bowels should be kept open regularly. Mental worry and anxiety must be avoided. Although it is never justifiable to promise a cure, it may be pointed out that diabetics who adhere carefully to the instructions given to them may live a practically normal and useful life for an indefinite period.

INSULIN TREATMENT

On deciding that insulin is necessary, the best plan is to start with two injections of 5 units each, one given half an hour before breakfast and the second half an hour before supper. The patient is put on an approximately basal diet; No. 3 test diet is usually adequate for the average adult. If the patient is under observation in a hospital or nursing home, it is safe to increase the insulin by daily additions of 5 units, the first increase being made in the morning. Thus on the first day the patient takes 5 units morning and evening, on the second day 10 units in the morning and 5 in the evening, on the third day 10 units morning and evening, and on the fourth day 15 units in the morning and 10 in the evening. If the patient is under treatment at home it is safer to increase the dosage more gradually.

When an uncontrolled diabetic is brought under the influence of insulin there is often a sudden alteration in the eyesight, which may render reading impossible. This is due to refractive changes in the lens resulting from changes in the water balance of the body. The vision rapidly returns, though new glasses may be necessary.

While stabilisation on insulin is being carried out the urine should be tested four times a day and the results carefully charted. Increases in insulin are controlled mainly by the urinary sugar. When this disappears or becomes very small in amount the dose of insulin should be increased very gradually. The blood sugar is of little value while the urine contains sugar, but when this has disappeared, estimations of blood sugar will help to control treatment. The blood should be drawn either shortly before the morning or evening injection of insulin, as at these times the readings are likely to be at their maximum. If the blood

sugar is found to be above 190 mgms. per cent., although there is no glycosuria, the patient has a high renal threshold, and the doses of insulin can be gradually increased still further until more normal levels of blood sugar are obtained.

HYPOGLYCÆMIC REACTIONS

When insulin lowers the blood sugar below about 60 to 70 mgms. per cent., characteristic symptoms are produced, which are usually termed hypoglycæmic or insulin reactions. The blood sugar level at which these occur varies considerably in different patients. The initial symptoms of a reaction are tremor, sweating and a sensation of hunger or a sinking feeling in the epigastrium. The patient may become confused, agitated, noisy, hilarious or quarrelsome. Sometimes acute alcoholism is closely simulated, and in some cases hypoglycæmic patients have even been arrested as being intoxicated. In more advanced hypoglycæmia there may be twitchings, paralyses, convulsions and coma. Reactions are most likely to occur two to four hours after an injection of insulin, but sometimes they may be delayed for eight hours or more.

The factors which are likely to produce reactions in a patient taking insulin as are follows :—

1. Errors in measuring the dose or the inadvertent use of double or quadruple-strength insulin.
2. Increase in carbohydrate tolerance after stabilisation.
3. After recovery from infections or sepsis, both of which conditions produce a temporary decrease of carbohydrate tolerance.
4. Delay or omission of a meal after an injection of insulin.
5. Gastro-intestinal disturbances which interfere with the absorption of carbohydrate.
6. Unaccustomed physical exercise, especially if prolonged. This is probably due to depletion of the stores of glycogen in the liver.

The treatment of hypoglycæmia is simple if the patient realises the significance of the symptoms in the early stages. Every diabetic taking insulin should carry with him a few lumps of sugar as an insurance against emergencies. One or two lumps, preferably taken with a little water, will rapidly cut short a reaction. In more severe cases where the patient is unconscious, 10 grammes of glucose should be given intravenously in about 50 c.c. of water, or a stomach tube may be passed and 50 grammes of glucose dissolved in a few ounces of water introduced. Hypodermic injection of 15 minims of 1 in 1,000 solution of adrenalin or 1 c.c. of pituitrin will also usually restore consciousness by converting glycogen in the liver into glucose, thus raising the level of blood sugar.

The occurrence of hypoglycæmic reactions in a patient undergoing stabilisation on insulin usually indicates that the dose of insulin is too high. Rather smaller doses should be given, but insulin should not be completely omitted. Special caution should be exercised, when insulin is used in elderly diabetics, to avoid reactions. This is most important in patients with degenerated heart muscle, as a severe reaction may cause anginal attacks or even sudden death. Young children and very emaciated diabetics are specially prone to hypoglycæmia, and in them increase in insulin dosage should be very carefully graduated. In such cases if facilities are readily available for blood-sugar estimations, these are helpful in enabling the medical attendant to gauge the effect of insulin.

EDUCATION OF THE DIABETIC PATIENT

If a diabetic patient is to be treated satisfactorily, it is essential to obtain his intelligent co-operation, or at any rate that of his relatives. If the patient is to adhere to his diet he must learn the elements of dietetics, and it is equally important that he should become adept at testing his urine, and, if necessary, giving himself insulin.

For the control of diabetic treatment, especially while the patient is being stabilised on insulin, the urine needs to be tested at least four times daily. This can be done more conveniently, and certainly more cheaply, by the patient himself than by the medical attendant, and therefore at the beginning of treatment the patient should be taught to test his urine. The most reliable test is Benedict's qualitative test; from the colour of the solution it is easy to judge roughly the amount of sugar present, provided a standardised technique is used. If the patient is taking insulin, the injections should be given by the patient himself from the beginning. As regards diet, all foods except the 5 per cent. vegetable group should be weighed until the patient learns to judge the size of a given portion with reasonable accuracy. In order to avoid monotony in diet the patient must have a knowledge of the content of various foods in common use as regards protein, carbohydrate and fat, in order that he may be able to vary his diet.

All vegetables and fruits contain carbohydrate, and they are classified as follows according to the percentage of carbohydrate present :—

5 *per cent. vegetables and fruits.*—Grape fruit, cabbage, lettuce, cucumbers, spinach, asparagus, marrow, celery, tomatoes, watercress, leeks, brussels sprouts, cauliflower, mushrooms, rhubarb, scarlet runners, french beans.

10 *per cent. vegetables and fruits.*—Oranges, strawberries, black currants, gooseberries, blackberries, pumpkins, turnips, beets, carrots, onions.

15 *per cent. vegetables and fruits.*—Plums, apricots, apples, pears, cherries, raspberries, green peas, artichokes, parsnips.

20 *per cent. vegetables and fruits.*—Bananas, prunes, potatoes, haricot beans, boiled rice, boiled macaroni.

Other sources of carbohydrate in the diet are (1) oatmeal, which contains about 66 per cent. of carbohydrate when weighed dry; (2) bread, which, whether white or brown, contains approximately 50 per cent. of carbohydrate; (3) milk.

The 5 per cent. group of green vegetables and fruits contains so little utilisable carbohydrate that they may be taken in unrestricted amount, even by severe diabetics. All other groups must be taken only in such amount that the total carbohydrate ration is not exceeded.

Quite apart from the regulation of the amount of carbohydrate in the diet, it is important that the total caloric value shall not be increased by too large amounts of protein and fat. If these be unrestricted, not only will the patient become obese, but he is likely to develop ketosis. Most of the special diabetic foods on the market are undesirable, as they contain a very high proportion of protein. In addition, they are very expensive and often unpalatable. An exception may be made for a small amount of sugarless marmalade at breakfast, should the patient feel he needs it.

ALCOHOL IN DIABETES

To forbid alcohol entirely is to impose an unnecessary hardship on the diabetic, but its consumption in anything except very limited amounts should be forbidden, as diabetics readily develop alcoholic neuritis. Moreover, alcohol has a calorific value, and if a considerable amount be taken it adds appreciably to the total calories of the diet. A large whisky produces approximately 120 calories. Many alcoholic beverages contain much sugar, particularly liqueurs, port, dark sherry and heavy beers or stout. These should be avoided completely, but light clarets, dry hocks and ordinary bitter beer are relatively innocuous.

DIABETES IN CHILDHOOD AND OLD AGE

Diabetes in Infants and Children.—Fortunately, the majority of diabetics develop the disease in middle life or later, but the diabetic child presents a difficult problem. Usually, though not invariably, diabetes starting before the age of 20 is severe in type, and before the discovery of insulin few child diabetics survived more than two years. Fortunately, with adequate treatment diabetic children now grow up normal in stature, physique and intellect.

The diabetic infant or child has to make good not only the wastage in its tissues, but allowance must also be made for the fact that it has got to grow. Consequently, more liberal diets are necessary than in the case of adults. This is specially true of the allowance of protein. Under the age of six years 3 to 4 grammes of protein must be given per kilo of body-weight; from seven to twelve years, 2 to 3 grammes per kilo; and between twelve and adult life, 2 grammes.

The total calories of the diet must be far higher than in the case of adults, and range from 100 calories per kilo in early infancy to about 50 at age 12.

Children are more liable to develop ketosis than are adults, particularly when they develop any infection. Consequently, a relatively large carbohydrate ration should be allowed. This should be about 100 grammes at age 5, 130 grammes at 10, and about 160 grammes at 15. With these amounts of carbohydrate there is little risk of ketosis.

In diabetic children it is most important that infections such as the specific fevers, tonsillitis, or even colds should be treated seriously. Any kind of infection lowers the carbohydrate tolerance. The patient should be kept in bed, take plenty of fluids with an ample supply of carbohydrate, and, if necessary, take increased doses of insulin to control glycosuria. If an infection be neglected, the child is very liable to go into coma, or at any rate to suffer a permanent decrease in carbohydrate tolerance.

Children are more prone than are adults to develop hypoglycæmic reactions, which are often induced by increased activity and physical exertion. The symptoms are often psychical, and the child may be thought to be merely naughty or perverse. More severe reactions with convulsions have sometimes been mistaken for epilepsy.

Insulin is almost invariably necessary in diabetic children. In infancy it is best given at least three, or perhaps four, times daily, but when the child is of school age, if possible the number of injections should be reduced to two. It is often difficult to balance the diet and insulin. The scheme suggested by Vatcher is often valuable in such cases. The morning dose of insulin is divided into two portions, roughly one-third and two-thirds. The smaller dose (one-third) is injected one hour before the remaining two-thirds, and breakfast is eaten half an hour after the second dose. The subdivision of the morning dose often seems to keep the blood sugar within normal limits after break-

fast, and further prevents hypoglycæmic reactions later in the day.

Diabetes in Elderly Patients, and Diabetic Gangrene.—Diabetes developing after the age of 60 is usually mild. There is frequently considerable arterio-sclerosis and myocardial degeneration; these conditions are usually a greater danger than the diabetes. Often a qualitative restriction of carbohydrate is sufficient, and insulin is only necessary in infections and emergencies. Considerable caution must be exercised in giving insulin to elderly patients, particularly if there is any evidence of myocarditis, as a severe reaction is likely to provoke anginal attacks or even sudden death.

Elderly diabetics are specially prone to develop gangrene of the toes or feet. This very serious complication is very rare before the age of 50, and, except in the very aged, it seldom is seen until five or more years after the diagnosis of diabetes has been made. Diabetic gangrene is always associated with atheroma of the vessels, but this is liable to occur at an earlier age in diabetic than in non-diabetic patients.

There are two factors which lead to gangrene in diabetics: (1) impairment of the blood supply owing to arterio-sclerosis; (2) diminished resistance of diabetic tissues to trauma and infection. The extent to which the circulatory factor is operative may be judged from the presence or absence of pulsation in the dorsalis pedis and posterior tibial arteries. Pain is often very severe, and the gangrene may be moist or dry.

The decision as to whether amputation is necessary is often a very difficult one. If the gangrene is spreading rapidly, and no arterial pulsation can be felt, immediate amputation is required. When, however, there is much infection of the tissues and particularly when undrained pus is present, more conservative measures are justifiable. Collections of pus should be drained and the wound irrigated with Dakin's or other antiseptic solution. It is frequently found that healing may take place in a few months, particularly if the diabetes is controlled with insulin. Persistent and severe pain associated with gangrene is an indication for early amputation.

TREATMENT OF DIABETIC COMA

Before starting active treatment with insulin it is essential that the diagnosis should be verified, especially when coma occurs in patients who are taking insulin. If hypoglycæmia be mistaken for diabetic coma, the results are likely to be disastrous. Fortunately, there is seldom any real difficulty in the differential diagnosis of the two conditions. The important points are given below in tabular form.

The presence of sugar in the urine does not necessarily preclude a diagnosis of hypoglycæmia, as the urine may have been secreted some hours previously and retained in the bladder.

The important points in the treatment of coma are given below:—

1. *Insulin.*—This must be given at the earliest possible moment, either subcutaneously or intra-

	Diabetic Coma	Hypoglycaemia
Type of onset	Gradual (several days).	Very sudden.
Symptoms and signs	Indigestion, nausea, vomiting, abdominal pain, constipation. Air-hunger and deep respiration. Rapid and thin pulse. Ocular tension low. Skin dry. No convulsions. Acetone in breath.	Sensation of hunger. Shallow respiration. Normal pulse. Ocular tension normal. Skin moist. Tremor; convulsions in late stages.
Urine	Sugar ++. Ketones ++. Albumen and casts common.	Absent or trace. Ketones absent. No albumen or casts.
Blood	Glucose usually above 0.35 per cent. Urea often raised.	Glucose usually below 0.06 per cent. Urea normal.

venously. The latter route should be adopted in dangerously ill patients with failing circulation. The insulin in such a case should be given in a pint of saline to which glucose (see below) has been added. The dose will vary with the degree of coma. If the patient is completely unconscious, at least 100 units should be given during the first two hours of treatment. Four injections, each of 25 units, at half-hourly intervals are probably more effective than a single dose of 100 units.

2. *Glucose.*—During the first few hours of treatment 1 gramme of glucose should be given for every unit of insulin injected. The object of giving glucose is to abolish ketosis and to prevent unexpected hypoglycæmia. In comatose patients glucose is best administered by stomach tube after washing out the stomach. An Einhorn tube is readily swallowed even by a comatose patient if the bulb of the tube be pushed well to the back of the pharynx. It can be left in position for the later administration of fluids.

3. *Dehydration.*—Patients in coma are always dehydrated. This is best combated in patients with circulatory failure by axillary or intravenous saline. In comatose patients at least 2 pints should be given early in treatment. Fluid may also be given direct into the stomach, but it is important not to give more than about 5 oz. each hour, since large quantities may induce vomiting or even acute dilatation of the stomach.

4. *Alkali Treatment.*—It is doubtful whether alkali is of value, and large doses may produce alkalosis.

5. *Constipation.*—An enema should be given as early as possible, and a rectal saline drip started subsequently.

6. *Circulatory Failure.*—The patient must be kept warm and cardiac stimulants such as Curschmann's solution or coramine be given. After recovery from coma, he should be kept in bed for a week.

7. *Infection and Sepsis.*—Coma is frequently induced by infection and sepsis. A careful physical examination should be made, and if there be any collection of undrained pus, it sould be dealt with surgically at the earliest possible moment.

Patients in diabetic coma should be under continuous medical observation, as the condition may change from hour to hour. Urine should be obtained, by catheterisation if necessary, every three hours, and if the results of blood-sugar are readily available, these are helpful in deciding on the subsequent dosage of insulin. The total amount of insulin given during the first 24 hours of treatment varies from about 150 units to 500 units. When in doubt it is safer to err on the side of too much rather than too little insulin. For several days after coma the diet should consist mainly of carbohydrate; fat should be reduced to a minimum.

TUBERCULOSIS IN DIABETICS

While insulin does not appear to have appreciably decreased the incidence of tuberculosis among diabetics, it has certainly much improved what used to be a very grave prognosis. Unfortunately, incipient phthisis is rarely diagnosed in diabetic patients, as its early symptoms are often attributed to the diabetes. Deterioration in a diabetic should always arouse a suspicion of tuberculous infection and calls for X-ray of the chest, sputum examination, and a temperature chart.

A diabetic with phthisis should always take insulin and should be kept on a high caloric diet. The carbohydrate should be not less than 150 grammes a day, and an ample supply of milk is advisable, as well as cod-liver oil.

PREGNANCY AND DIABETES

Before the discovery of insulin pregnancy was rare except in very mild diabetics, and in most severe cases amenorrhœa was constantly present. With effective insulin treatment pregnancy has become not uncommon.

Most pregnant diabetics show a definite loss of carbohydrate tolerance, especially from the sixth month until delivery. This usually necessitates an increase in insulin, which may be as much as 50 per cent. Fœtal death is very common during the later months of pregnancy unless the mother's urine and blood sugar is kept within normal limits. Pregnancy produces an increased liability to ketosis, and therefore a relatively high carbohydrate diet is required. The carbohydrate should be not less than 150 grammes per diem, and the protein allowance should be at least $1\frac{1}{2}$ grammes per kilo of body weight. The blood sugar should not be allowed to exceed 0.16 per cent. Termination of pregnancy is now very rarely necessary; indeed the risk of the operation is not much less than that of allowing the pregnancy to proceed to term.

It must be realised that the presence of a reducing substance in the urine of a pregnant woman does not necessarily indicate that she is suffering from diabetes. Ozazones should always be prepared to exclude the possibility of lactose in the urine during the later stages of pregnancy. Also a blood-sugar tolerance curve is called for in cases where the patient is not obviously diabetic. During pregnancy a low renal threshold for glucose is not at all uncommon, and considerable amounts of sugar may be passed, even though the

blood sugar is within normal limits.. Restriction of diet in such cases does nothing but harm. Every pregnant patient who develops glycosuria should be thoroughly investigated, as it is not uncommon for a mild or potential diabetic to develop obvious symptoms for the first time during a pregnancy.

OPERATIONS ON DIABETICS

With the aid of insulin, surgical operations on diabetics have become possible, which in pre-insulin days would have proved inevitably fatal. No diabetic, however mild, should undergo a surgical operation without being put on insulin. If the operation is not an urgency, the patient should be stabilised on insulin on a high carbohydrate diet, at least 150 grammes per diem or even more, with a low fat content. For the 24 hours immediately preceding operation he should take orange juice with glucose, oatmeal gruel and beef tea. Three hours before operation he should take orange juice with 50 grammes of glucose, which should be administered half an hour after 25 units of insulin.

If the operation be an urgent one, it should not be delayed owing to the diabetes for more than a few hours. If the patient is already taking insulin, his usual dose should be doubled and given at the earliest possible moment. Glucose should be given by mouth or rectum. A further specimen of urine should be obtained, if possible, after two hours, and if this contains sugar and ketones, further insulin should be injected. It is not necessary, indeed it is usually impossible, to abolish glycosuria before urgent operations, but the control of ketosis is most important. After operation the patient should be given rectal and axillary salines until fluids can be taken by mouth. If possible, 100 grammes of glucose should be taken daily for some days following operation. Insulin should be given in small but frequently repeated doses, the actual amount to be determined on the results of frequent urine and blood-sugar examinations.

Local or spinal anæsthesia should be employed, if possible, but if a general anæsthetic is necessary, gas and oxygen is to be preferred. Ether is less satisfactory owing to liability to post-operative vomiting, and chloroform should never be used.

A Note on Eyework

By A. Ernest Sawday, Esq., F.R.C.S.(Edin.).

THE Emperor Nero is said to have used a precious stone mounted in a ring as an aid to vision when watching the games in the arena. Perhaps he was a hypermetrope. Down the ages spectacles have gradually evolved. Roger Bacon referred to them. The first medical mention of them appears to have been by Bernard Gordon early in the 14th century.

The eyes are an integral part of the body. In many cases we have only to look into the eyes to be able to say, " This is a sick man." Many years ago medical men were coming to recognise that examination of the eyes and sight-testing was a job which should be undertaken only by one who had had a full medical training. Before the war there were in London a few dispensing opticians, opticians who undertook not to test sight but to make glasses to the prescription of doctors only. In recent years the number has greatly increased, and an " Association of Dispensing Opticians " has been formed. The dispensing opticians are highly skilled in the art of making spectacles. They do not in any circumstances examine eyes or test sight.

Approved Societies in some cases made grants to their members for " optical treatment and appliances." One large society approached the British Medical Association and intimated that it would prefer to employ ophthalmologists for this purpose, but the point of difficulty was the matter of expense. The B.M.A. then drew up a list of ophthalmic medical men who were willing to conduct such an examination for a fee of a guinea.

The view of the B.M.A. has always been that the reference of persons for sight-testing to other than registered medical practitioners ought not in the interests of the public to be encouraged. In 1927 the sight-testing opticians as a body applied for statutory registration. It became evident that there was needed an ophthalmic medical service which would conform to the economic needs of the poorer classes. The result has been the co-operation of the B.M.A. with the Association of Dispensing Opticians in the formation of a body known as the National Ophthalmic Treatment Board (N.O.T.B.). Thus is provided a combined service consisting of an ophthalmic medical examination and the provision of glasses where necessary. The fee payable to the ophthalmic medical practitioner is 10*s.* 6*d.*, and the service he is required to give comprises an examination and prescription for glasses (if required), such advice

and simple operative treatment as can be given at a single clinic consultation, and a report to the patient's private doctor. This service is open only to insured persons, their dependants, and others whose total family income does not exceed £250 per annum.

There is therefore no reason why any medical man should refer his patients to a sight-testing optician. If he does not do eye-work himself he should refer the patient to a colleague who does. (A lady once told me that when she complained of her eyes her doctor told her to go to a well-known departmental store !) No man who sets up to examine eyes and test sight can be anything other than a humbug unless he has had an adequate medical training. In the ordinary course of routine work one sees constantly many conditions other than simple errors of refraction. To mention only a few : Cataract (quite common), high myopia with fundus changes, papilloedema, optic atrophy, latent and patent squints, etc. I have seen more than one patient with perfectly normal eyes who had been given glasses by a sight-testing optician.

Mr. Bishop Harman has published analyses of two series of 10,000 cases. Of these 20,000 cases one in every three had some defect of the body or of the eyes other than an error of refraction. Until the patient has been properly examined nobody can possibly say that the case is one simply of refractive error.

Tens of thousands of patients are seen by sight-testing opticians every year. A very large number of those would be seen by medical ophthalmologists if their doctors would take the trouble to put them on the right path. All patients who get any benefit from an Approved Society have to get a paper signed by their doctor.

It might be mentioned in passing that it is extremely unwise for any medical man to consent to deliver any lecture or address before a body of sight-testing opticians.

Refraction work is interesting, needs infinite patience and practice, and will bring to light a surprisingly large number of unexpected pathological conditions. The following are a few examples :—

Case 1.—Middle-aged man. Severe frontal headaches which it was thought might be of ocular origin. Large polypus filling left nostril. Diagnosis, sinusitis.

Case 2.—Girl aged 20. Vision 6/24 each eye. Said to have had bad eyes as a child. Diagnosis, old interstitial keratitis.

Case 3.—Man aged 40. Vision has failed recently. Exudation round discs and scattered patches about the retinæ. Diagnosis, renal retinitis. Urine contains albumen.

The National Eye Service has increased rapidly in the last few years. It is doing good work, but there is still a vast field to be covered. Many doctors are still unacquainted with the scheme though the Secretary, 1, High Street, Marylebone, W.1, is always pleased to send full details to anyone interested. For every patient we see the sight-testing opticians probably see several. There is plenty of scope in eye work, but it is essential that students and newly qualified men should appreciate the true state of affairs, for it is only by the interest and assistance of the profession generally that a sufficient number of patients can be brought into the scheme to justify the small inclusive fee which is charged for a comprehensive service. It should be realised that this is no rule-of-thumb or cut-and-run service. While it is true that with practice there are some patients whom one can fix up perfectly satisfactorily in twenty minutes, there are other difficult cases on whom one must be prepared to spend an hour or more (and probably see them more than once, although there is no obligation to do so). A difficult case of astigmatism or heterophoria (muscle imbalance) will sometimes almost reduce one to tears, but it is all in the day's work and adds to the interest.

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The Editor will, at all times be glad to consider articles or sketches, provided that they are accompanied by the writer's name and address, not necessarily for publication. Authors who desire reprints of their papers should make their own arrangements with the Printers when they return their proofs. All contributions to be addressed to *The Editor*, who does not accept responsibility for the views expressed by contributors.

Correspondence

Uncomfortable Sitting Accomodation

To the Editor of the GAZETTE

SIR,—During the past two years the opinions expressed in your valuable paper have been of a very liberal nature.

As one of those who have benefited very much indeed, if indirectly, from Dr. Boland's course on Pre-clinical Medicine, I am venturing to call your attention to the seats provided for students and others in the Park, also to the seats in the Anatomical Theatre.

Now the chief glory of the buttocks, and the region appertaining thereto, is that the great muscles of this region help us in adopting the erect attitude. Normally the buttocks are not sat upon, except, perhaps, at the very lowest part of this noble region.

Moreover, if the anatomy of the sitting position be studied carefully, it will be noted that the region forms the lower part of the back.

In the seats in the park, as in many of those that are now forced under us in the 'buses, and at Lord's cricket ground, there seems to have been some impression in the minds of those who designed these seats that man sits on his buttocks. At Lord's, of course, doubtless more money is made by correcting this mistake with the sale of cushions, to fill up the hollows which have been provided by the designers of the seats. Only very tall men can sit comfortably upon the seats provided in the modern 'buses, but there can be no excuse in a Park belonging to a hospital which has provided such great names in the history of anatomy as those of Hilton, or the editors of the pocket Anatomies of Fagge and Turner.

Perhaps they should be called authors.

Now, Sir, let me recall to your mind, if not buttock region, the design of the seats in the Park. But first let me give necessary statistics. There are nine seats in the Park, some of which have been given most generously by a former eye patient's friends.

Of these nine seats the oldest has a flat seat, with a slightly sloping back. Three of them have moderate hollows at the back part of the horizontal portion, and the remaining six have very large hollows situated in the same region. It made my heart bleed, and all my sympathetic soul pour itself out, when I saw three students sitting upon one of the last class of seats. They followed Nature, and not fireside Anatomy. How they did this will have to be described in words that I have learned indirectly from Dr. Boland's classes. The front part of the seat has an hiatus where the top board has been taken away by some devotee of Nature. This enables the sitter to raise his thighs so that he can take full advantage of the hollow in the seat and rest his feet upon the bar which lies immediately below this hiatus. I may say that the hollow is reinforced by an uprising of the front part of the seat. Thus the students who were taking advantage of their knowledge of Nature were enabled to take the pressure of the seat from the part where it normally presses, namely, the region of the back of the thigh where the great sciatic nerve, leaving the protection of its covering muscles, divides into its two main branches.

Please, Sir, note that I am not adopting any new nomenclature.

By raising their thighs in the manner that I have tried to explain, the students succeeded in sitting fairly comfortably.

But it is not everyone who can adopt this attitude, and I am appealing to you to ask the authorities to re-read their Anatomy, so that the mistake of imagining that a hollow at the back part of the sitting portion of a seat is not made in future.

I see that some seats have been provided in the common-room where the Medical School staff have tea provided for them. These have a ridge in the front part of the sitting portion of the seat, which certainly prevents the members of the staff from sitting for any length of time with comfort to themselves. This, however, may be taken as indicating the desire of the financial authorities of the School to minimise expense, by offering really uncomfortable sitting accommodation.

Now I recollect being told that Dr. Boland, though I did not hear the remark myself, being absent at the time, at one of his classes drew attention to the value of small matters being noted.

Will you, Sir, please be good enough to bear this in mind when I ask you to accompany me into the Anatomical Theatre? The seats there are designed in a very curious way. I could not continue my investigations further than I did, as I went in once when Mr. Evans was lecturing. (How many laps round the table does he do when lecturing?) I went in again, and, with the faint light of a lantern that was illustrating one of Professor Johnston's lectures, I noted that the buttocks being two, one on each side (has not Mr. Ogilvie drawn attention to the diagnostic value of there being two sides?), there were two hollows, one for each buttock, with a slight uprising between. I suppose that this was intended to occupy the

perineum of the individual sitter. Surely these devices are not complete for comfort unless a slight hollow be made on the left side of the " eminentia perinealis " of the seat.

The hollow should be oval in shape and not more than an inch long, nor more than half an inch broad.

Let us go back to the days of John Hunter, as Osler once said, and let us have flat seats, and not seats which, though anatomically correct from the point of view of the fireside anatomist, are not correct at all, because they do not take into account the natural tendency of the body to make itself comfortable even though such tendency may be negatived by seat designers' efforts.

This letter would have been much shorter had I been sitting on one of the seats in the Park, except that old one facing Nuffield House, but do not let the inmates think that this old seat is the only one ; there are others designed by people who do not know, and apparently do not care, on what we sit when at the Hospital.

With apologies, not only because of my obviously youthful position at the Hospital, but also because of the length of this letter, believe me,

Yours, sitting comfortably,

TRAGUS.

(Not one of Mr. Layton's firm.)

Weight Reduction

To the Editor of the GAZETTE

SIR,—I have often felt that the curriculum at Guy's falls far short in its teaching of dietetics and metabolism. In support of this contention I enclose a letter from a more progressive country which you may publish, providing the names are not mentioned.

I think that it is only fair that this method of weight-reduction should be made more public in order that my colleagues may take the opportunity to study same.

I presume that thistles are vegetables ?

Yours, etc.,

G. E. GENGE-ANDREWS.

21, Craven Road,
W.2.

Dr. Genge-Andrews.

Dear Doctor,

I am writing this letter at the request of Dr. ——, as he is at present out of the city. While in Honolulu, he met your patient Mrs. ——, who was interested in his weight-correction method and requested that you be written about the same, in order that she might get your approval.

I have known Dr. —— for a number of years, and he has become quite well known through his method of weight reduction, which consists in normalising the mineral metabolism of the body through certain vegetables, in a concentrated form, and suggested menus. These vegetables are imported from various parts of the world, and put up in tablet form.

I understand that Mrs. —— will contact you in a few days to obtain your opinion. If there is any further information you desire, do not hesitate to write.

Yours very truly,

Los Angeles. E. H——, M.D.

(**We should be interested to know if Dr. Genge Andrews was duly contacted by Mrs. ——, and if he succeeded in de-abnormalising her mineral metabolism.)

An Extract from New Zealand

To the Editor of the GAZETTE

SIR,—Perhaps the enclosed cutting, which dates from about 1868, may be of some interest to your readers, amongst whom may be those who would be able to relate the incident to which it refers. It came into my possession by chance, being found amongst the effects of a relative by marriage—now deceased—who was a collateral descendant of Thomas Guy. It was amongst other cuttings for 1868, the sole clue to a doubtful chronology.

Yours, etc.,

C. B. PALMER.

Mental Hospital,
Auckland, N.Z.

" Guy's Hospital has of late attracted some extra share of public attention ; and no one who is acquainted with the history of the institution will suppose that the religious, or irreligious, vagaries tolerated by the Governors are in any degree in unison with the wishes of the testator. The hospital, in point of fact, owes its origin to a Nonconformist family ; for Maitland tells us that Thomas Guy the elder, who flourished during the Commonwealth, was a Baptist, lighterman and coalmonger. His son, the founder of the hospital, removed with his mother to Tamworth, after his father's death, and there attended the grammar-school. He was apprenticed to John Clark, ' a binder and seller of books in Mercers' Hall Park, in Cheapside,' and afterwards became a freeman of the Stationers' Guild. When he commenced business for himself it was ' in the little corner house betwixt Cornhill and Lombard Street.' He traded largely in Bibles, and did something in the way of improving the quality of the paper and

print, while he also contrived to reduce the price below the high rates then charged. Bibles printed on coarse paper were imported from Holland, but Guy agreed with the Royal printers for his own supplies. He likewise traded in seamen's tickets, and more largely in South Sea stock, which he sold at a premium of 500 per cent. before the panic of 1720 introduced into London the phenomena of 'South Sea faces.' It was said that Guy engaged to marry his maidservant, but broke off the intended match because the luckless girl told some paviors to go a few inches further in some work than the old man had instructed them. Oddity that he was, he would, were he now alive, doubtless very summarily set things right at the great Hospital which his munificence has endowed. The vagaries of semi-Romish ecclesiastics would not be tolerated by such a man; and valuable physicians who resign in disgust situations they have held long with honour, would soon have justice done them if Thomas Guy could be the arbitrator."

PASSIM

WE congratulate Mr. D. W. C. Northfield, late Surgical Registrar at Guy's, and now of the Department for Neurological Surgery at the London Hospital, and Assistant Surgeon to the Queen's Hospital for Children, on having gained the distinction of a Hunterian Professorship at the Royal College of Surgeons.

We congratulate also Mr. Davies-Colley and Dr. C. K. Simpson on having been elected Erasmus Wilson Lecturers, appointments devised by Sir Erasmus Wilson (through whose "patriotic zeal" Cleopatra's Needle came finally to rest upon the Embankment), to "promote the study of pathology together with anatomy and physiology."

THE annual reshuffle has just taken place. Amidst a fever of excitement and much speculation the junior staff appointments have been made. There have, as usual, been some surprises, some disappointments, and some running true to form and according to prophecy. The results we publish elsewhere, and would congratulate Mr. Bruce Pearson, of the Asthma Clinic, on his return, and Mr. Campbell, late House Physician to Dr. Hurst and Dr. Symonds, on his appointment, to the post of Medical Registrar. We would congratulate also Mr. W. G. Gill, hitherto Demonstrator of Anatomy and late House Surgeon to Mr. Hughes, and Mr. S. H. Wass, also an Anatomy Demonstrator and late House Surgeon to Mr. Slesinger, on their appointments as Surgical Registrars.

WE have been asked by the Medical School Office to say that a new enterprise of special tuition classes in chemistry, physics and biology, for those taking the Pre-Medical examination in September (Conjoint Diploma or L.D.S.), is being started in the Medical School. These are to begin on Monday, August 24th. The fee is to be two and a half guineas for each subject, or six guineas for all three.

There are also to be special tuition classes in Anatomy and Physiology for those taking the Cambridge M.B. in October of this year, and the Conjoint examination in September of this year. This is to be a concentrated course of both lectures and practical work, conducted by staff demonstrators. Those who are interested are asked to apply for further particulars to the Medical School Office.

WE would remind readers that the next course of instruction for the Final Examination for the Fellowship of the Royal College of Surgeons of England will begin on Monday, August 31st. Guy's men who wish to take the course should send in their names immediately to the Dean of the Medical School.

ON one of our flying visits to the Superintendent we noticed a strange thing. We have always regarded with a mystic awe that part of the Hospital, consisting of two rooms, in the North-west corner of the front quadrangle. In one of these rooms works the Superintendent, in the other toils the Matron. They are separated by a communicating door. In a proximity to each other in itself symbolic of co-operation, are set two great centres of Hospital control; one may think with wonder on the power that is within those rooms. So it was with slight surprise that we noticed, right above the door in question, and on the Superintendent's side, the following legend :—

"No one is indispensable.
If you or I or the man you think indispensable
Were to die to-morrow,
The work would go on just as well, perhaps better."

But we don't believe that.

A CORRESPONDENT has sent us the following pleasantry from a story published in an evening paper :—

"As he was thinking, his hands were running lightly over Milburn's leg, registering the fractures, the damaged ligaments, the bruises, the internal bleeding. It was a compound fracture of the

tibia and fibia, with a minor splintering of the periosteum, that small and vulnerable knob on the outside of the ankle."

Another small and vulnerable knob would seem to be the author's bump of anatomy.

▭

WE were amused the other day, attending a clinic in one of the special departments, when a middle-aged lady arrived bearing with her an out-patient card on which her age was stated to be fifteen. "Are you Agnes McIntyre?" (or whatever it was) we asked. "Oh, yes," she said. "But this says your age is fifteen." "Oh, yes," she said. "I was fifteen when I attended first. I've been coming since 1905." And she was quite indignant when we altered it. *Rep, rep, rep.*

Sam Among the Nurses

T'WERE Saturday night up in Nuffield,
The patients were all tucked in bed;
The nurses, who should have been workin',
Were doing the crossword instead.
Nurse Baitland was sittin' at table,
Nurse Podden was squatting on t'floor,
With a dictionary, looking up meanin's
Of five-lettered words meanin' "gore."
When suddenly out of the silence,
There came a most 'orrible sound,
A rattle, a swishin', a screechin',
Then a thud like a sack hittin' ground.

"I wonder what that was?" said Podden.
"The lift," answered Baitland; "that's all.
We've only got two bloomin' inmates,
And neither one likely to fall."
Then up rushed our Sister Storksbill,
Like a judge with a pris'ner at Bar:
"Now answer me, what are you doin'?"
Said Baitland, "The crossword in t'*Star*."
"Don't you know, then," said Sister, "what's happened?
Someone's fallen from window on t'car."
"Can't help it," says Baitland. "I'm busy;
I'm doin' the crossword in t'*Star*."

They went to t'inquest next morning.
To Baitland the Judge said, "Don't spar.
Tell the Jury just what you were doin'."
Says she, "Why, the crossword in *Star*."
Then the Judge called Nurse Podden and swore her.
He said, "We've not got very far.
So hurry; don't bother to tell us
You were doing the crossword in t'*Star*."
He said, "When you heard what had happened,
Why didn't you run down to see
If 'twas one of your patients had fallen?
I think that I would if 'twere me."

Said Podden, "I couldn't be bothered,
And I just can't bear looking at blood.
Do you think that would fit in our crossword?
I'm jolly well certain it would."
Shouts Baitland, "I think that you've got it!"
To Sister she shouted, "Hurrah!
If 'blood' crosses with 4 down and 6 down
We've finished the crossword in t'*Star*!"

Hospital Appointments

MEDICAL SCHOOL

THE following appointments and reappointments have been made by the School Council; duties to commence on October 1st, 1936:—

Medical Registrar—

Mr. H. A. Treble, reappointment for one year.
Mr. R. S. Bruce Pearson, reappointment for one year.
Mr. C. G. Baker, appointment for two years.
Mr. A. M. G. Campbell, appointment for two years.

Resident Surgical Officers and Registrars—

Mr. H. J. B. Atkins, reappointment for one year.
Mr. W. J. Ferguson, reappointment for one year.
Mr. W. G. Gill, appointment for two years.
Mr. S. H. Wass, appointment for two years.

Obstetric and Gynæcological Registrar—

Mr. J. B. Blaikley, reappointment for one year.

Assistant to the Guy's Hospital Clinical Research Fellow—

Mr. C. G. Pantin, appointment for two years.

Demonstrator of Anatomy, Whole-time—

Mr. J. E. Spalding, appointment for two years.

Demonstrators of Anatomy, Part-time—

Mr. F. I. Evans, appointment for two years.
Mr. J. H. Mayer, appointment for two years.

Demonstrator of Pathology, Whole-time—

Mr. S. J. De Navasquez, appointment for two years.

Demonstrator of Pathology, with Charge of Clinical Laboratory—

Mr. R. L. Waterfield, reappointment for one year.

Griffiths Demonstrator of Pathology—
Mr. J. C. Colbeck, appointment for two years.
Gull Student in Pathology—
Mr. S. J. De Navasquez, appointment for three years.
Demonstrators of Pathology, Part-time—
Mr. T. E. Howell, appointment for two years.
Mr. W. N. Mann, appointment for two years.
Demonstrators of Physiology, Part-time—
Mr. H. A. Hamilton, appointment for two years.
Mr. N. M. Jacoby, appointment for two years.
Mr. J. H. Mayer, appointment for two years.
Demonstrators of Chemistry, Whole-time—
Mr. F. H. Brain, reappointment for one year.
Mr. W. M. Colles, reappointment for one year.
Dr. B. Levin, reappointment for six months.
Demonstrator of Chemistry, Part-time—
Mr. S. Holt, reappointment for one year.
Demonstrator of Physics, Whole-time—
Dr. A. C. R. Wakeman, reappointment for one year.
Demonstrator of Physics, Part-time—
Mr. W. W. Gilford, reappointment for one year.
Demonstrator of Biology, Whole-time—
Mr. J. S. Wilkie, reappointment for one year.
Demonstrator of Biology, Part-time—
Mr. W. E. Young, reappointment for one year.

DENTAL SCHOOL

THE following appointments and reappointments have been made by the School Council; duties to commence on October 1st, 1936 :—

Registrars in the Dental Department for Children—
Mr. K. E. Pringle, reappointment for one year.
Mr. H. Richards, appointment for one year.
Demonstrators of Dental Prosthetics—
Mr. G. H. Ellingham, reappointment for one year.
Mr. J. W. Mansie, reappointment for one year.
Mr. G. G. T. Tregarthen, reappointment for one year.
Mr. R. J. Wheatley, reappointment for one year.
Demonstrators of Operative Dental Surgery, Morning Attendance—
Mr. H. A. M. Ching, appointment for one year.
Mr. R. O. Holland, appointment for one year.
Mr. H. B. Smith, appointment for one year.
Mr. C. S. Henderson, reappointment for one year.
Mr. C. I. Hagger, reappointment for one year.
Mr. D. J. Wandless, reappointment for one year.
Demonstrators of Operative Dental Surgery, Afternoon Attendance—
Mr. A. R. F. Thompson, appointment for one year.
Mr. H. H. Kenshole, reappointment for one year.
Assistant Bacteriologist (Dental)—
Mr. C. W. T. Shuttleworth, reappointment for one year.
Demonstrator of Dental Bacteriology—
Mr. C. S. Henderson, reappointment for one year.
Demonstrator of Dental Histology—
Mr. J. W. Mansie, appointment for one year.
Assistant Curator of the Dental Section of the Gordon Museum—
Mr. A. R. F. Thompson, reappointment for one year.

Hospital Information, etc.

COMBINED HOSPITALS UNIVERSITY ENTRANCE (British Universities) SCHOLARSHIP EXAMINATION

July, 1936

St. Bartholomew's Hospital Medical College.
Guy's Hospital Medical School.
St. Thomas's Hospital Medical School.

The following awards have been made :—

St. Bartholomew's Hospital Medical College—
M. M. Bull, Queen's College, Cambridge—Scholarship.
P. W. Isaac, Christ's College, Cambridge—Exhibition.
Guy's Hospital Medical School—
R. G. Thomas, Brasenose College, Oxford—Scholarship.
N. A. Neville, Queen's College, Oxford—Exhibition.
St. Thomas's Hospital Medical School—
J. A. Cosh, St. John's College, Cambridge—Scholarship.
J. F. Bourdillon, Balliol College, Oxford—Exhibition.

Pass List

UNIVERSITY OF CAMBRIDGE.
Easter Term, 1936.
FIRST EXAMINATION FOR MEDICAL AND SURGICAL DEGREES.
PART III.
Elementary Biology.

D. P. J. Bernard	C. N. Macintosh.
F. W. A. Campbell	F. S. Mellows

PART IV.
Organic Chemistry.

D. P. J. Bernard	G. E. Thomas

SECOND EXAMINATION FOR MEDICAL AND SURGICAL DEGREES.

PART II.

Human Anatomy and Physiology.

J. V. Braithwaite — D. B. Roberts
W. E. Roden

Anatomy.

F. M. Hayes

THIRD EXAMINATION FOR MEDICAL AND SURGICAL DEGREES.

PART I.

Surgery, Midwifery and Gynæcology.

G. S. Steele-Perkins.

PART II.

Principles and Practice of Physic, Pathology and Pharmacology.

G. B. Barbour — H. A. Hamilton

UNIVERSITY OF OXFORD.
M.B., B.Ch.
June, 1936.

Medicine, Surgery and Midwifery.

W. W. Gilford.

Pathology.

O. I. Green — M. A. Partridge

Forensic Medicine and Public Health.

W. F. Dunham — A. L. Young

Materia Medica.

W. D. Brinton — A. L. Young

CONJOINT BOARD.
PRE-MEDICAL EXAMINATION.
June, 1936.

Chemistry.

S. Coffey — A. Halamandres
A. C. G. Freer — I. A. M. Mitchell
D. L. Gabb — J. C. Ritchie
R. C. Green — S. N. Simpson
G. W. Gunson

Physics.

M. G. Fisher — I. A. M. Mitchell
A. C. G. Freer — J. C. Ritchie
D. L. Gabb — S. N. Simpson
R. C. Green

Elementary Biology.

A. H. Bell — A. Halamandres
C. A. K. Bird — I. A. M. Mitchell
S. Coffey — D. S. Orr
D. A. Clough — W. E. R. Pitt
R. F. Cutmore — G. E. A. Ralston
R. R. Darracott — J. H. Ratcliffe
J. R. Edgson — P. I. Rhodes
J. D. Everall — J. C. Ritchie
J. R. L. Goldman — S. N. Simpson
R. C. Green

FIRST EXAMINATION.

Anatomy.

A. G. Beaton — J. V. A. Steytler
P. H. Birks — J. F. Swan
F. R. Buckler — F. R. Turner
E. W. Crews — D. J. du Toit
M. A. Shellim — J. Y. D. Wakeham
E. A. Spouse — J. K. Wood

Physiology.

A. G. Beaton — A. E. Ram
P. H. Birks — M. A. Shellim
F. R. Buckler — D. J. du Toit
A. Pearce — W. N. Vellacott
D. B. S. Price — J. Y. D. Wakeham

Pharmacology.

L. H. Cooper — R. L. Evans
S. S. Davidson — J. P. J. O'Keefe

SOCIETY OF APOTHECARIES OF LONDON.
PRE-MEDICAL AND PRIMARY EXAMINATIONS.
July, 1936.

Biology.

E. P. T. Miles.

Anatomy.

E. F. Gleadow — H. F. Sparling

Physiology.

D. S. Foster — N. W. R. Lucas
E. F. Gleadow — N. A. St. C. Marley

ROYAL COLLEGE OF SURGEONS OF ENGLAND.
FINAL L.D.S. EXAMINATION.
June, 1936.

PART I.

General Surgery.

I. L. Clark — W. R. C. Morris
D. F. Denniss — J. C. Prosser-French
S. W. Guilding — V. S. Sams
P. S. P. Jenkins — R. G. Siggers
H. J. Lewis — D. Tudor-Williams

PART II.

Dental Surgery.

W. I. N. Forrest — R. F. Parfitt
W. M. Glen — R. G. Siggers
C. H. Greaves — E. Du Toit
F. L. Ingram

Papers by Guy's Men

C. Lambrinudi. Fractures of the spine. *Clin. Jour.*, 1936, lxv, 265.

G. B. Dowling. Contact dermatitis. *Clin. Jour.*, 1936, lxv, 290.

F. Bocquet Bull. The faculty of observation with particular reference to orthodontics. *Dental Record*, 1936, lvi, 361.

Maurice Mitman and Others. The therapeutic value of vitamins A and D in measles. *Arch. Dis. Childhood*, 1936, xi, 127.

T. B. Layton. Medical tactics in mobile warfare. *Jour. R.A.M.C.*, 1936, lxvii, 18.

W. Courtney Lyne. An inquiry into the oral anatomy of mental defectives. *Dental Record*, 1936, lvi, 512.

Appointment

J. U. Human appointed Anæsthetist to Queen Mary's Hospital for the East End, Stratford, E.15.

Changes of Address

W. D. Glynn Jones, Rocklea, Moreton Hampstead, Devon. *Moreton Hampstead* 36.

Births

WILLIAMS.—On June 22nd, 1936, at Attwood House, Basingstoke, to Gladys (née Bennett), wife of H. Keith Williams, M.C., M.B., B.S.—a son.

EDS. { M.A.P. / A.G.W.H.

GUY'S HOSPITAL GAZETTE

A Journal of Medicine, Surgery, Dentistry and Hospital News.

PUBLISHED FORTNIGHTLY.

Volume L — *1st August* 1936 — *Number* 1253

PASSIM

THE Appeal was launched on Thursday, July 16th. In the fortnight that has elapsed just over twenty thousand pounds have been received, which, in fourteen days, forms an excellent nucleus for the five hundred thousand for which we most earnestly hope. Of this twenty thousand pounds the greater part has been sent from outside London. Two donations have been received from American visitors, some have come from Scotland, some from Ireland. Most of the money hitherto has been in small sums, though one lady, who wishes to remain anonymous, has sent five thousand pounds with her best wishes to the Treasurer, Governors, doctors and nurses of the Hospital, that they may carry on their Christian work.

There have been, in addition, two gifts which deserve special mention. Half a crown was brought by a lady who apologised for her delay in bringing it; the delay had been caused by the wet weather, which had prevented her from going out. She had set the half-crown aside for the repair of her shoes.

The other is a gift which may bring pleasant recollections to many old Guy's men. Some years ago at Sunday's River, Cape Province, South Africa, there was a small and struggling company of some thirty or forty overseas ex-officers and men who were working together at citri-culture. Dr. W. G. Rogers, M.D.(Lond.), M.S., an old Guy's man, and surgeon to the Johannesburg Hospital, organised an appeal to old Guy's men in Great Britain to assist this project. The appeal met with considerable response, and now that, with the passing of years, the company has grown into a flourishing organisation, the members still retain an appreciative and kindly memory of Guy's. Those of our readers who responded to that appeal will hear with great pleasure that at a Board Meeting of the Citrus Co-operative Company a donation of a hundred guineas was very generously voted to the Hospital. It is a pleasure seldom experienced to meet with such lively appreciation of a kindness done many years ago.

▭

A MOVE has been made at last over this matter of the shortage of maternity beds. Queen and Victoria Wards, separated hitherto by the labour rooms through which those in Victoria who were about to need colpo-perinæorrhaphies had to pass to join those in Queen who did already need them, are now to be combined to form one ward devoted solely to maternity beds. The gynæcological cases in Queen Ward have been transferred to the Surgical Block, and are now in Astley-Cooper, which is no longer an accident ward. The accident cases are being placed in Cornelius. The radium beds hitherto in Cornelius have been scattered among the various other surgical wards, and the dental beds which were previously in Astley Cooper have been transferred to Patience and Samaritan.

It is to be hoped that the name Astley-Cooper, not perhaps very suitable for a ward devoted to gynæcological cases, will not disappear; Naaman, the aptness of which designation we have never fully understood, might perhaps be re-named, for we ought still to have an Astley-Cooper Ward.

▭

WE have been asked by the Medical School Office to draw attention to the following Dental Post-Graduate Courses to be given here during the Autumn. Applications to attend should be made to the Dental Sub-Dean of the Medical School, and must be received not later than September 25th, 1936:—

"Partial Denture Designing," by Professor H. B. Fenn. An extended course of six sessions

to be held on Mondays at 5.30 p.m., commencing on Monday, October 5th. Entrance fee, £10 10s.

"Inlays, Crowns and Bridges," by W. E. Herbert, M.R.C.S., L.R.C.P., L.D.S. An extended course of six sessions to be held on Tuesdays at 5.30 p.m., commencing on Tuesday, October 6th. Entrance fee, £10 10s.

"Porcelain Inlays and Jacket Crowns," by K. Hooper, M.R.C.S., L.R.C.P., L.D.S. An extended course of six sessions to be held on Thursdays at 5.30 p.m., commencing on Thursday, October 8th. Entrance fee, £10 10s.

"Dental Radiology," by H. M. Worth, M.R.C.S., L.R.C.P., L.D.S. An extended course of six sessions to be held on Saturdays at 2.30 p.m., commencing on Saturday, October 3rd. Entrance fee, £10 10s.

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WE congratulate Mr. R. C. Brock on his appointment as Assistant Surgeon to the Brompton Hospital for Diseases of the Chest.

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AN American tennis tournament with a sliding scale handicap was organised at Honor Oak Park on Saturday, July 18th. The courts were in excellent condition, and there were many competitors culled from the visiting, resident, nursing, radiological, and massage staffs and the Medical School.

There were many side-shows at which willing helpers worked indefatigably. There was a fortune-teller, buried treasure, a most ingenious race game devised by Mr. Stamm at which any amount of money was lost, a variation of darts, a test of skill with Association footballs, and a diabolical game of penny-throwing which we found a certain loss.

The tennis was none the less enjoyable for being played in a typhoon, and for those on the upper courts the lob was a losing shot, for the ball was carried irrecoverably on to the lower terrace by the capricious wind. There was an exciting moment when the fortune-teller's tent was lifted bodily into the air, and though we thought for a second that the fortune-teller and her crystal had been wafted upwards with it, it turned out that at the time it happened to be empty.

The tournament was finally won, appropriately enough, by the Captain of the Lawn Tennis Club, Mr. E. P. O. Watson and his partner Miss Lee Uff. Dr. de Souza and his partner were the runners-up. Thanks are due to the organisers, Mrs. Ryffel, Sister Johnson, Dr. Ryffel and the Captain and Secretary of the Lawn Tennis Club, to Mr. Kelsey Fry, Dr. Watt and the two firms of tennis-racquet manufacturers who gave prizes, and to Dr. Knott, who acted as treasurer.

The sum of twenty pounds was made, which is to be divided between the Hospital and the Musical Society. The latter is in need of funds after an unsuccessful financial season, and it was largely with its support in view that the afternoon was organised. Though the weather militated against us, A Good Time Was Had By All, on which the organisers are to be congratulated.

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WE congratulate Mr. A. M. G. Campbell on having been awarded the Laidlaw Prize, and Mr. H. R. S. Harley on having been awarded the Beddard Prize, for 1936. These prizes are awarded for the best papers of the year read before the Guy's Hospital Physical Society.

▭

WE congratulate the Royal Navy on having rescued our Matron of the College from the Communists in Barcelona. Miss Doig, while on holiday in Spain, was enmeshed in political struggles in Madrid, whence, at the height of the revolution, she escaped to Barcelona. After an alarming time, during which there was violent fighting, she was fortunately rescued with other refugees, and has now returned to England. If anything could make a return to the College attractive, it might be a terrifying experience such as this. We congratulate Miss Doig on her escape and hope that she will favour us with her experiences at a later date.

A Case of Urinary Fistula

A Clinical Lecture delivered at Guy's Hospital by W. D. Doherty, Esq., M.S., F.R.C.S.

GENTLEMEN,—I am going to describe to you a case of urinary fistula following a fractured pelvis, which brings forward several points of interest in the causation, diagnosis and treatment of this condition.

F. Q., aged 19, was admitted on March 17th, 1935, into Lazarus Ward. Three years previously he had been involved in a motor accident, sustaining a fractured pelvis on the right side. The X-ray plates of the fracture showed it as involving the rami of the pubis. At the time of the accident he was admitted to another hospital, where the diagnosis of ruptured bladder was made. This brings me to my first point, *i.e.*, the diagnosis and treatment of ruptured bladder in association with fractured pelvis.

This boy was severely shocked from his injury, but when he recovered from this it was found that he was unable to pass his urine; he was, therefore, catheterised and a few ounces of blood-stained urine were found in his bladder—this meant severe bruising or rupture of the bladder. A measured quantity of sterile water was run into the bladder and in a few moments withdrawn; it was found that only half the quantity admitted was recovered. On this evidence a diagnosis of rupture was made and the bladder explored by the suprapubic route. The bladder was found to be ruptured on the extraperitoneal part of its posterior aspect. This is important, because practically all ruptures due to fractured pelvis are extraperitoneal. Intraperitoneal ruptures occur more commonly from a blow on the abdomen at a time when the bladder is full. An attempt was made to close the wound by sutures inside the bladder and a tube was inserted to drain the bladder suprapubically. During the next week a swelling began to form in the perineum, and eventually burst, discharging some foul-smelling pus. This continued to discharge, but the suprapubic tube was removed, the suprapubic wound healed and he passed his urine naturally. He was discharged from hospital at the end of three months, voiding normally, but with a sinus in the perineum.

On admission to Guy's three years later it was found that when the patient passed his water there was at the same time a trickle of urine from the perineal wound. This was confirmed by giving methylene blue by mouth, which appeared in the urine passed per urethram and in the discharge from the perineum. We knew, therefore, that we were dealing with a bladder fistula. An operation was undertaken, some dye injected along the fistulous track and an attempt made to trace the track from the perineum to the base of the bladder and excise the whole track. This was fairly easy, and the track was found to contain two small phosphatic stones. When the removal was completed there was quite a large hole into the bladder, but very deep in the wound, and it was found impossible to close it; the bladder was, therefore, opened suprapubically again and the opening was seen to be to the right side, but very close to the opening of the urethra. The bladder in the neighbourhood of the fistula was very adherent to the fracture, and the fibrous contraction around had formed a pouch into which the urethra and the fistula opened.

This brings me to my second point: a fistulous opening into any body viscus will close spontaneously if the normal route for the contents of the viscus is the route of least resistance. For instance, a fistula into the cæcum will close if there is no obstruction to the free flow of ileal content along the large bowel; a suprapubic fistula will close if there is no obstruction to the normal outlet through the urethra. In this case the outlet by the urethra was narrowed by the contraction, and also the formation of the pouch left another hole at the most dependent part of the bladder, so that when the bladder contracted the greater part of the urine was forced out through the urethra, yet a certain amount was always trickling out through the fistula and was forced through the perineum when the bladder contracted. We had, therefore, to do two things: to keep the bladder empty so as to prevent urine collecting at the base of the bladder, and to excise the edges of the fistulous opening and get it to heal up.

We separated the fistulous opening away from its attachment to the pelvis and excised the edges, but found it impossible to close the opening efficiently owing to the proximity of the urethral opening; we therefore cut a wedge of muscle slightly bigger than the opening and, having passed a piece of strong catgut on a probe through the perineal opening into the bladder, tied it to the muscle graft and pulled the graft so that it wedged into and obliterated the opening into the bladder and most of the track. We then inserted a large suprapubic drainage tube and gave instructions that the boy should be nursed on his face so that no urine should collect around the opening. The following day all was well, but the next day my house surgeon informed me that the patient was complaining of lower abdominal pain and his temperature had gone up to 101°. I may mention that when opening his bladder through the old suprapubic scar we had opened his peritoneal cavity, but we had resutured this—we thought securely—against any infection or leakage of urine into the peritoneal cavity.

The following day the patient looked very ill, his temperature was 102°, pulse 120, and on examination the whole of his lower abdomen was rigid. This brings me to my third point: a rise in temperature and pulse rate, with abdominal pain and, on examination, localised involuntary rigidity of abdominal muscles, means inflammation of the peritoneum underlying the muscles, *i.e.*, localised peritonitis. We use these facts in coming to a diagnosis of peritonitis, and then the history of the onset of the pain and the knowledge of the commonest causes of peritonitis in each segment of the abdomen help us to diagnose the cause of the peritonitis. For instance, a localised peritonitis in the right lower abdomen is most commonly caused by appendicitis, in the left lower abdomen by salpingitis or diverticulitis, in the

right upper abdomen by cholecystitis or a duodenal ulcer, and so on.

In view of the operation two days previously we naturally thought that we were dealing with a lower abdominal peritonitis due to a spreading infection from the bladder, and decided to insert a drain into the peritoneal cavity. Under gas and oxygen anæsthesia an incision was made in the right iliac fossa, but, to our surprise, on inserting a finger, we could feel a thickened œdematous cæcum and appendix. This could be delivered, and it was found that the tip of the appendix was gangrenous and perforated. So this was the cause of the peritonitis ; the appendix was removed and the abdominal cavity drained.

The lesson that we learn from this is that in acute abdominal conditions the decision to open the abdomen is made on the general condition of the patient and the local physical signs, and it should be made often before we arrive at a definite diagnosis. It is wrong to say, " We are not yet sure of the diagnosis and therefore we will wait until it is clear." Rather should we say, " This patient has a localised peritonitis, his pulse and temperature are rising and he is losing ground ; we do not know the cause of his peritonitis, but we have decided to open his abdomen to find out the cause and we are prepared to deal with whatever lesion we may find."

To return to my story ; this boy had a stormy convalescence. Owing to this complication he was, of course, nursed in the Fowler position, but, in spite of this, he never leaked any further urine through the perineum, and the perineal wound healed. He was left, however, with a suprapubic urinary fistula which refused to heal. We were not, nevertheless, worried about this, because, as I mentioned earlier in my lecture, suprapubic fistulæ are nearly always due to obstruction to the normal flow through the urethra. In this case, the scar of the perineal fistula had caused contraction of the bladder outlet, so that by judicious dilatation of the urethra with bougies a free flow was established, and eventually the suprapubic fistula healed.

I hope you will, as I have done, learn something from this case. Firstly, in the diagnosis and treatment of rupture of the bladder; secondly, in the diagnosis and treatment of peritonitis; and, thirdly, in the treatment of fistulæ in general.

Senescence

A Paper by C. N. Brown, Esq., and C. R. Morgan, Esq., read before the Physiological Society.

MR. CHAIRMAN and GENTLEMEN,— In presenting this paper we have tried primarily to provide material which will provoke discussion. Dr. Leonard Williams wrote that, as senescence, like love, is a story which never grows old, something might be gained if every now and again an effort be made to reconsider it in the light of modern fashions in medical thought. Therefore, we have attempted a definition of old age and have considered most of the pertinent theories which deal with its causes.

If we examine elderly human beings, we find certain constant characteristics which we are accustomed to regard as symptoms of old age. The skin of the face is dry, wrinkled and usually pale. The hairs of the head are white, but baldness is not necessarily present. Baldness is progressive and usually begins in youth, but if not already present does not come with old age.

There is a loss of muscular tissue, the volume of which diminishes and the substance becomes paler. The fat between the fibres is absorbed. Movements are slower and muscular power is abated.

Stature in the male diminishes by about an inch, and in the female by $1\frac{1}{2}$ inch. There is also a loss in weight.

Elephants look generally wretched. There is a loss of skin on the cheeks, the eyes are dim, the margins of the ears are frayed and legs thin.

Horses also look very wretched when old. Skin is bare in places or covered with long hairs. There is considerable atrophy.

Birds and lower vertebrates show little external change.

That the tissues are potentially immortal can be shown by tissue culture experiments, when cells, provided that they are kept in a suitable medium, will continue to grow without showing signs of degeneration long after the animal from which they were taken would normally have died.

These experiments are only successful, however, when the culture medium is frequently changed and when care is taken that its volume is not so restricted that the amount of nutrient material available is insufficient to meet the demands of the culture. If the volume is restricted in this way, division ceases, and the cells begin to show signs of degeneration similar to those found in old age.

These two essential conditions, namely, frequent renewal and unrestricted volume of the culture medium, seem to indicate the production within the cell of a substance which inhibits its vitality and which is responsible for senile changes in a tissue either when it is present within its constituent cells or in the pericellular fluid.

Robertson suggests that in the metazoa, where a definite size is attained by the organism and maintained until its death, the autogenetically older cells, or those which appear first in development, have a high nuclear to cytoplasmic ratio, and that they require a correspondingly high level of nutrient material to carry out their nuclear synthesis. Also, during their period of growth, these cells produce an autocatalyst, which hastens the nuclear synthesis, and which accumulates both within the cell and in the pericellular fluid. When the organism has reached the adult state, the nutrient level of the surrounding fluid is insufficient to allow the forward reaction of nuclear synthesis to proceed at its former rate. The cells are no longer dividing, and so an accumulation both of the products of the reaction and of the autocatalyst takes place. Clearly, then, a time will come when the forward reaction will cease, unless division of the cells occurs with an accompanying liberation of these products.

The autogenetically younger cells have a lower nuclear cytoplasmic ratio, and so are able to carry out their nuclear synthesis at a lower nutrient level than the less differentiated ones. This allows them to synthesise to a point suitable for their division to take place. Consequently, when tissues whose constituent cells are those of the autogenetically older class undergo injury, and they must inevitably do so at some time during their existence, repair is not effected by their specific cells, but by one or other of those possessing the lower nuclear-cytoplasmic ratio. The result is that functional activity is impaired, which, if it occurs in any organ of fundamental physiological importance, may have far-reaching effects. The primary damage leads to damage in other parts of the body, causing a further replacement of specific tissue cells by others incapable of continuing the functional activity, and so a vicious circle is established.

Robertson suggests that there is another and more important effect of differentiation. Although the amount of nutrient material available in the adult is insufficient to allow the less differentiated cells to increase their nuclear synthesis, it is perfectly satisfactory for those with a lower nuclear-cytoplasmic ratio. The result is that the latter cells use a large amount of the material for their rapid nuclear synthesis, and still less is available for the first type.

The older cells, now, are not only unable to increase their nuclear synthesis, but they are unable to maintain it at its former level. This is because the accumulated products of the reaction, aided by the inhibitory powers which the large mass of autocatalyst exerts over the forward action increase the rate of the reverse action above the other.

This reverse reaction proceeds until a point is reached where the nutritive level is sufficient to maintain an equilibrium. This new equilibrium which is established, says Robertson, may be inconsistent with the continuation of the functional activity of the tissue concerned, and, since many of the autogenetically older cells constitute tissues which are essential to life, their degeneration will ultimately affect the whole cell community and bring about the changes which we associate with old age.

Robertson, although offering an explanation of the primary causes of old age, does not discuss the many secondary factors which undoubtedly play a large part in accelerating the process.

Weissmann suggests that the limitation of life is due to the inability of the organism to reproduce cells to replace those destroyed in the process of living. He states, further, that the possible number of generations of cells varies with different types.

Minot, accepting this view, supposes that the power of reproduction gradually diminishes from birth until a stage is reached when the organism is incapable and necessarily atrophies and degenerates.

Bueller, working on this theory, points out the difficulty of healing wounds in elderly people, which he says is due to the diminished capacity of the organism to produce scar tissue.

It is stated that the bare skin mentioned earlier, the atrophy of genital glands, muscles and other organs is attributable to this cause.

We have yet to reconcile to this theory the continued growth of hair and nails in old age and the fact that nerve cells never reproduce—not even in youth. Further, they fail to explain why reproduction should fail in one individual earlier than in another.

Metchnikoff holds that the organism becomes old owing to the action of phagocytes, which cause general atrophy. Despite considerable opposition, he maintains that the nerve cells are ingested by phagocytes which have been called neuronophages. Nerve cells contain yellow, brown and black granules, but these are not released into the interstitial tissue when the nerve cell dies and dis-

appears. They are ingested by the neuronophages, and can be demonstrated therein. We are not enlightened as to the cause of this phagocytosis, as it has not been discovered.

Other examples of this phagocytosis are the blanching of hair and atrophy of ova and muscles. In bone we have the same process performed by osteoclasts. This results in the liberation of large amounts of calcium, which become deposited in various tissues of the body in old age, and the bones become soft and light. Cartilage is impregnated with calcium and results in the characteristic malformation in old people. Atheroma of arteries and Munckeberg's arterio-sclerosis result from deposits of lime in the arterial wall making the cells hard and friable.

Metchnikoff is convinced that the most active factor in senescence is some alteration in the higher cells of the body, accompanied by a destruction of these by the macrophages, with the result that fibrous tissue usurps the place of the higher elements. This process, he says, affects organs of secretion and reproduction, mucous membranes, the skeleton and, in a modified way, the skin, though the testis is supposed to be immune. He supports this latter statement by giving cases of a dog aged 18 and men of 94 and 103 with active spermatozoa, and adds that such cases are not rare; but the validity of such a statement seems questionable, since we know that most men become sexually impotent long before passing away through senile decay.

On this subject Voronoff has done a great deal of work which demands attention. He was struck by the appearance of eunuchs who are castrated before the age of six or seven. He observed that they were long in the leg and had small craniums, smooth, hairless faces, and the majority were obese. They had pendulous cheeks and developed breasts and enlarged pelves; in fact, they looked like old women. Their muscles were flabby, their gums and sclerotics pallid. They were lethargic, their intelligence was slow, their memory bad; they lacked courage and enterprise. They grew old early and the senile arc was premature. Their hair became white early and they seldom attained old age. From these signs Voronoff concluded that the internal secretion of the testes determined sex characters, promoted the development of bones and cranium, prevented the laying down of adipose tissue, combated sclerosis and prolonged the life.

He has observed that the grafting of young testicles into old subjects produces a return of physical energy and sexual activity. There is a reduction of blood pressure and adiposity. This he attributes to better metabolism. There is an improved vision in presbyopics due to increased tonicity in muscles of accommodation; there are improved mental condition as shown in memory, and an increased capacity for work.

His experiments were first carried out on animals, and so pleased was he with his results that he turned his attention to man. A point which was always a constant source of worry to him was the difficulty he experienced in obtaining a supply of healthy young testicles for hand-grafts in his human subjects. He tried hard to persuade young men that they could manage very well with one, but they all seemed to prefer to have two strings to their bow. He then tried to obtain them from men condemned to death and from cases involved in bad street accidents who seemed to have little chance of recovery. Finally, thwarted in every direction, he resorted to apes, and made many successful operations. He claims complete mental and physical restoration in 36 to 88 per cent. of cases, and 26 to 55 per cent. also were restored sexually. The ages of his patients ranged from 22 to 75.

One of his cases, a Mr. E. L——, was an Englishman. He had had gonorrhœa and prostatis several times. He was subject to malaria; he had smallpox at 54, and at 72 peritonitis necessitating laporotomy. He was a chronic alcoholic and had all the appearances of an old man. He was heavy, bent, and obese with sunken features and atonic eyes. He walked with difficulty, leaning on a stick. He had pronounced arcus senilis, his memory was bad, and intelligence slow and sluggish. He had been sexually impotent for twelve years. Eight months after operation he had lost half his obesity, was jovial of manner and had active movements. His eyes were clear and there was no superfluous fat. His muslces were firm and attitude erect. Hair was beginning to grow, he was taking part in winter sports, he could read without glasses, and had regained his sexual activity.

He died three years later of delirium tremens.

Voronoff's remark on this is that men would probably derive more benefit from the operation were they to conduct themselves with the same sagacity as the beasts, whose physological expenditure is in proportion to their needs, and did they not kill themselves by their various excesses. He quotes the case of one of his rams which is now some nineteen years of age; that is to say, it has exceeded the normal life of these animals by four or five years, or nearly 33 per cent.

There would seem to be considerable room for doubt as to whether Voronoff's treatment has all the virtues he claims for it, but superficially it does seem to have the effect of stimulating mental

and physical activity. There seems to be a great deal in Metchnikoff's suggestion that Voronoff does not add to longevity, but does avoid a morbid senility. The author of this statement quotes the case of flat worms which were alternated between starvation and feeding. The experiment was prompted by the fact that well-fed flat-worms soon mature and reproduce, whereas those on scanty diet become smaller and simpler. As a result of the experiment it was found that those which underwent the alternation remained stationary, while controls went through nineteen generations. His advice is to keep the blood clean and pure and to fast—not starve—periodically. He deplores the foodstuffs which we consume and call nourishing. He says that most people would rather drink water than bad wine, but, judging by the common custom, the same people would rather eat badly cooked foods than eat uncooked salads, dairy produce and the kindly fruits of the earth, for which they vociferously thank the Lord on Sunday and relegate to an emasculating stewpan on Monday. He contends that cooking is an art and, unless practised as such, our food is made into a culture medium for bacteria.

This, it would seem, is only part of his melancholy tale. His whole point is that whereas food ingested via the portal vein is purified in the liver, that which, having entered the lymphatics, travels by the thoracic duct, enters the blood-stream without going through the furnace. This back stairway for impurities is inevitable, and therefore it behoves us to take great care with our food, for the foreign matter thus acquired results in the deterioration by poisoning of, first, the nervous system, then, in lesser degree, the glandular, muscular and connective tissue.

One of Metchnikoff's strongest points is that of auto-intoxication. He finds that birds, notably parrots, ducks and fowls, live to great ages relative to their size, and they are very fertile. It has been argued that they are exposed to many dangers, in youth particularly, to the ravages of foxes, vultures, etc. This cannot, says Metchnikoff, account for their great fertility—rather that their fertility and longevity account for their existence. He says that the alimentary systems are the key to the problem. The large intestine takes no real part in digestion—it is merely a storage mechanism for waste products.

In the birds, there is no functional large intestine, and since the legs are not used in flight, a bird is able to defæcate—as most of us have learnt to our cost—whilst in the air.

On the other hand, mammals and running birds have to stop to defæcate. If hunting or hunted, it is not consistent with success or safety to have to stop periodically for this purpose. Consequently, these animals have a large intestine in which waste material may be stored until a convenient time occurs for evacuation. Unfortunately, this mechanism has disadvantages in that putrefaction takes place and toxic substances are absorbed.

So there are indeed many factors which cause us to grow old, but finally, we would suggest that the primary cause of old age must be due to some wide biological principle as suggested by Robertson. However, the many disturbing influences which occur during the life of an animal cannot be disregarded as contributive factors to this complex phenomenon.

Correspondence

Hockey

To the Editor of the GAZETTE

SIR,—May I make use of your columns the better to get into touch with our members?

A trial game has been arranged for September 23rd, and as this is considerably before the Medical School term begins, would members who intend playing during the coming season leave me a note in the Colonnade with their address or telephone number enclosed? This would help me considerably in preparing the sides.

In addition to this game, it has been decided to make the 2nd XI game against Sevenoaks on September 26th a trial game, and to arrange a further game for newcomers to the Hospital one evening at the beginning of October.

A new ground has been acquired for us by the Clubs' Union at the London University's ground at Motspur Park. This replaces the old one at Worcester Park, and is a great improvement on it, the turf and the accommodation being excellent.

Yours, etc.,

A. C. GREENE,
Hon. Sec., Hockey Club.

Guy's Hospital,
S.E.1.

Guy's Hospital Musical & Operatic Society

To the Editor of the GAZETTE

SIR,—At the Annual General Meeting of this Society it was decided to try and re-form a Hospital Male Voice Choir on the lines of the old Glee Club. Several people have already

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signified their interest, but there is still room for many more. Information may be obtained from Mr. G. A. R. Winston in the Wills Library, who will be pleased to add further names to the list.

A preliminary meeting was held in the Probationary Room of the Dental School on Friday, 24th July, at 5 p.m., to discuss the proposed future activities of the Section, and all interested, whether members or not, who were unable to attend, are invited to communicate with Mr. Winston or the Secretaries.

Yours, etc.,

L. F. W. SALMON,
W. E. GREENWOOD,
Hon. Secretaries.

Reviews

Appendicitis—When and How to Operate. By W. J. STEWART MCKAY. Published by Messrs. Angus & Robertson. *Price* 12*s.* 6*d.*

TO write in a stimulating and provocative style is obviously the fashion in the Antipodes. A well-known Australian surgeon attached to one of our biggest children's hospitals periodically shatters the calm of Harley Street and its environs by dropping a bombshell into the midst of some of our more orthodox publications, and when the smoke and dust have cleared away, amongst the débris can be discerned many jewels of inspiration and much of the grit of truth. In his work on "Appendicitis" Mr. Stewart McKay, of Sydney, has adopted a similar style. He has produced a book which can be read like a novel and which is enlivened by anecdote and epigram. Into it he has poured the result of forty years' experience in abdominal surgery; it has been written with very obvious enjoyment, and it contains a wealth of matter hitherto unknown or ill-appreciated, and yet it is the most dangerous publication to fall into the hands of the general practitioner or the quite inexperienced surgeon for whom it is designed.

The problem of appendicitis has been tackled from the beginning. The anatomy, the physiology, the clinical picture, preparatory treatment, operation, after-treatment and complications have all been dealt with in the minutest detail, and an original feature is introduced describing the best method of approaching the patient and the patient's family when faced with this contingency. We are informed that the surgeon, "after his examination of the patient, will be conducted to the living-room, where he will find her mother, and perhaps her sister, and he will be expected to give his decision on the first of the three questions that he set out to solve, namely: 'Has the patient appendicitis?' He will have come to the decision that she has appendicitis after taking her history and after his examination; he may them proceed in something like the following manner:" having described her tonsils and adenoid facies to the relatives, the surgeon is to make the following observation, that "'in her neck I find some enlarged glands, probably due to the trouble in her tonsils, but her long eyelashes and her long fine hair and other signs tempt me to suggest that among her parents or relatives there is a tuberculous tendency.' (Here the mother may confirm the doctor's suggestion.)" The rigmarole then passes on to the chest, the stomach, and the bowels, all of which show abnormalities pointing to a predisposition to appendicular trouble. By this time the thoroughly alarmed mother might be considered to be in a fit state to receive the final pronouncement, that her daughter should undergo an operation for the removal of the offending organ, but all is not yet over. At about this stage in the recitation the mother will probably come in with her cue.

"'Do you think, doctor, that an operation is necessary?' The medical attendant will reply: 'I have come to the conclusion that an operation should be performed, but I propose to take a little of the patient's blood in order to add confirmation to what I have already told you. I have my microscope in my car, and I shall at once proceed to examine the patient's blood.'"

It is a matter of surmise how far the average surgeon in this country could get away with stuff like this, and even if he could get away with it, how far it would be worth it either from his point of view or from the patient's.

It is not, however, so much in regard to such matters that the author of this work trespasses upon all that we have held to be sacred. His method of approach to a patient is a man's own province, and vastly different styles each have their successful advocates, but when we come to the surgical management of a case of appendicitis there is less room for individual idiosyncrasies. In the first place the author is a champion of the Ochsner Sherren or delayed treatment of appendicitis, and such is not the teaching accepted at this Hospital. The old arguments are trotted out that between the second and the fifth day of the disease appendicectomy is generally unnecessary and may be exceptionally difficult; "expert

surgeons," however, may indulge in appendicectomy during this period. It would almost have been better had he reversed the statement and asserted that the " delayed treatment " should be attempted only by " expert surgeons."

It cannot be too frequently stressed that the " delayed treatment " is by far the more difficult; it calls for qualities of observation and judgment that only the expert can possess. Fortunately, no specious argument can hide the figures which are provided for us by the author. These figures are taken from those published by McNeill Love, and show 102 deaths out of a total of 1,861 cases of acute appendicitis in all stages of the disease—that is a mortality of 5.2 per cent. At this Hospital the abdomen is opened in all cases suffering from acute appendicitis unless the disease is obviously settling, and the appendix is removed unless the difficulties of exposure render this dangerous or impossible. In the last 300 cases of acute appendicitis admitted, the mortality has been nil, and only a quite fantastic trick on the part of fate can reveal that this method will be responsible for five deaths in every hundred when a larger series comes to be examined.

We can hardly excuse statements such as " 25,000 people die of appendicitis yearly in the United States. Patients are not operated on so often in England, so less than 3,000 people die of appendicitis yearly," or again, " Patients who are seen during the period when they are suffering from a first attack of . . . catarrhal appendicitis do not need to be rushed off and prepared for operation with the indecent haste so common at the present time both in the city and the country. . . . Often the patients are treated by rest alone, and they recover, but after a few months the symptoms recur and are more severe." If that is so, surely it would have been better to have removed the appendix at the first instance when the patient was in better health, and so save him having a recurrence which is more severe. To attempt to bias the reader by terming proper dispatch " indecent haste " adds no whit to the argument. Further, even advocates of the " delayed treatment " press for early diagnosis and early operation; it is only in the " negative phase," whatever that may mean, that they advise expectant measures.

Had the author confined himself to these indiscretions the book might still have much value. His conception of the pathology of catarrhal appendicitis and its relation to " chill " is well thought out and well presented, his description of post-operative dietary is sound and reasonable, and there is a good account of Kelly's removal of the appendicular mucous membrane in cases exhibiting invincible adhesions of the outer coats of the appendix to surrounding structures, but, unfortunately, crimes of a far more heinous nature are committed in every chapter. A recitation of these is hardly called for, but a few of the more outstanding examples may be cited that will strike a chill to the heart of every doctor. Castor oil is prescribed as a routine in the preparatory treatment of the patients, and " with regard to children castor oil should always be administered in the mild cases and never less than a tablespoonful should be the dose " !

Battle's incision is insisted upon for exposure of the appendix, and the excellent illustration depicting this operation faithfully reproduces the knife cutting through the eleventh dorsal nerve. " Should the opening not be large enough for the inexperienced operator, he can always enlarge it. This is done by cutting upwards " (through the tenth dorsal nerve) " or downwards " (through the twelfth), " . . . but care must be exercised because the deep epigastric artery and vein are here " ! Cases are kept in bed for fourteen days after appendicectomy, the stitches having been removed on the twelfth day.

No, Sir; for a few hours' interesting, lighthearted and irresponsible chatter about the appendix, perhaps, but to get into the hands of the impressionable student—Heaven forbid !

H. J. B. A.

Textbook of Pathology. By Sir ROBERT MUIR. Published by Messrs. Edward Arnold & Co. Fourth Edition. Pp. 992. *Price* 35*s.*

AMONG student pathologists there are two schools of thought, the Boyd school and the Muir school. Of these, the former is probably the larger, and this in spite of the fact that Boyd is slightly the bigger book. There is something about Boyd, an occasional levity which leavens the whole, the unexpected wisecrack, occasional paragraphs which are almost fantastic, which enable parts of it to be quoted wherever pathology is discussed among students. Who does not know that the opsonins are " sauce for the phagocytes," that the thyroid is the " leader of the glandular orchestra " ? Who has not with Boyd " ventured forth on the uncharted sea of the endocrines, strewn as it is with the wrecks of shattered hypotheses, where even the most wary mariner may easily lose his way as he seeks to steer his bark amid the glandular temptations whose siren voices have proved the downfall of many who have gone before " ? Who has not been thrilled on tracing, in Boyd's company, the " veritable Odyssey " on which ankylostoma duodenale sets forth ? Who, with Boyd, has not been able to find a romance in parasitology ?

Muir is a very different kind of thing. It gives one the impression of being a Scottish book for the Scot. It is concise, matter of fact, almost a little dour. One pictures the earnest student, of the type of the ghillie in " Mary Rose," growing impatient with Boyd's occasional elegant facetiousness, and turning for the real meat of the matter to Muir. In fact, perhaps, there is not much to choose between the books. The first edition of Boyd was published in 1932, and the last edition in 1934. The first edition of Muir was published in 1924, the second in 1929, and the third in 1933.

By the time that Boyd appeared, therefore, the current edition of Muir was somewhat out of date, and until the third edition of Muir the popularity of Boyd over its rival was great, and a certain undue stigma may perhaps yet attach to Muir for that reason. The present edition has been brought thoroughly up to date, and increased by over a hundred and twenty pages from the 1929 edition. It is easy to pick holes in text-books, and there are many things which we do not like about this one. We do not care for the continued use of the term " myeloid sarcoma " for " osteoclastoma," and we do not much like the statement that the colour index is " the average amount of hæmoglobin per corpuscle ; " we feel that there has been too much economy of space over the question of the symptomatology of diseases, and that the relation of symptoms to lesions has been inadequately dealt with. The illustrations, always a weakness of the older editions, are disappointing, and many of them useless to the student.

The book is well printed in a somewhat unattractive way, and the proofs seem to have been read with care. It is a sound, reliable text-book, but one for which we cannot feel a great affection ; it is half a sovereign less in price than Boyd, and those to whom this fact especially appeals are probably the sort of people who would like this sort of book.

Pathology of the Nervous System. By J. HENRY BIGGART, M.D. Published by Messrs. E. & S. Livingstone. Pp. 335. *Price* 15*s*.

THIS is a very good book. Although it is called a student's introduction, it is more complete than such a phrase would suggest. A balance is struck between an academic thirst for minutiæ on the one hand and, on the other, the sense of satiety that the student begins to feel when he comes towards the end of one of the ordinary text-books of pathology, and it is at the end that the pathology of the nervous diseases is dealt with as a general rule.

The book is well written, concise, and well produced, and the illustrations, of which there are two hundred and four, are very good indeed. The text is well arranged, and there is a plenitude, but not an excess, of references. At 15*s*. anyone who is interested in the nervous system is on a good thing.

Minor Oral Surgery for the General Dental Practitioner. By ALONZO MILTON NODINE. Published by Messrs. G. & S. Cottrell.

THIS book is admirably produced, very modern in matter and manner, and serving more than a single didactical object. Along with his views on dental surgery Mr. Nodine argues very strongly that the dental practitioner should be more ready to call in a specialist than is the case. Interspersed throughout the dental matter are a few medical gems, including the statement that the majority of people with gallstones, Bright's disease, tuberculosis and diabetes remain in perfect health for many years.

The black-and-white diagrams showing the technique of local infection and tooth extraction are excellent, as also are the photographs of Mr. Nodine's many contributions to science, his hypodermic needle, his curette and his head lamp.

P. W. C.

Handbook of Surgery. By ERIC C. MEKIE, M.B., F.R.C.S.(Edin.). Published by Messrs. E. & S. Livingstone, Edinburgh.

SYSTEMATISED teaching in its purest form probably reaches a higher level at the Edinburgh School of Medicine than at any other in Great Britain, and this standard of excellence has its reflection in the text-books of its accredited teachers. It is no surprise to find that a book from this school, which has been produced expressly for last-minute revision by the student, is incomparable to others in this field of our experience. Indeed, Mr. Mekie, who has tutored the Edinburgh Fellowship class for some years, is too modest ; this book could serve for any as an admirable synopsis of surgery as it is taught to-day.

It is difficult to find fault with the work for the purpose which it is intended to serve.

The book retains the usual anatomical classification, though here and there are refreshing instances, as in the chapters on " Surgical Treatment of Diabetes " and " The Autonomic System," of a broader and more physiological approach to surgery, and both these chapters contain a large amount of practical detail regarding modern views and treatment on these subjects.

Each chapter is preceded by a précis of the anatomy, physiology, development and method of clinical examination of the part. There then

follow the pathological states in the customary order: traumatic, congenital, inflammatory and neoplastic. Such illustrations as are included are for the most part black-and-white and representations of skiagrams, and are sufficiently good to make us wish there were more of them.

The printing and production are of that standard which we are accustomed to expect from Messrs. Livingstone & Co.

This account may seem more eulogistic than critical, but it is our regret that we had to face our qualifying surgical examinations without the assistance of this book.

P. W. C.

Applied Physiology. By SAMSON WRIGHT. Published by Oxford Medical Publications. Sixth Edition. *Price* 20*s*.

IT is just two years since the last edition of this well-known book appeared. Therefore it is a remarkable fact that the new book is not simply a reprint of the old one, but a book containing an immense amount of new material. About 90 new illustrations are added, most of the figures being taken from recent papers. Therefore a number of the well-known diagrams have disappeared and one notices, almost sorrowfully, that McNee's diagram of the liver lobule has been replaced by another, completely different, and belonging to a different author.

The account of the pituitary, ovary, testis and thyroid has been radically revised, and the clinical pictures associated with their dysfunction have been added. In connection with these, there is a chart showing the chemical relationship of the various members of the Sterol group, which are of physiological and pathological interest (such as the œstrin group, testis hormones, corpus luteum group).

There are many other additions to this book, which are too numerous to be mentioned here. As a result of the inclusion of this new subject matter the book has increased in size by 70 pages and in price by two shillings.

This new edition deserves to retain all the popularity which its predecessors have earned, and as an examination text-book it may be recommended with confidence.

R. C.

Sport

Cricket

Guy's v. Old Leysians

GUY'S Hospital drew with the Old Leysians on Saturday, June 27th, at Honor Oak Park. Guy's won the toss and elected to bat on a soft wicket.

Although runs came at a steady pace, four wickets were down for 72, but P. H. Birks came to the rescue and added 50 with A. D. Willis, the latter being caught after making 25. Birks was then ably supported by H. Jones-Lewis, and Guy's were able to declare at 199 for the loss of eight wickets, Birks being undefeated with 73 to his credit.

The old Leysians on batting had six wickets down for 106, with 20 minutes left for play. Three more wickets fell, but the last batsmen played out the last two overs amid great excitement, the score finally reaching 132 for nine wickets.

Scores.—Old Leysians, 132 for 9 wickets (McClintock, 4 for 24).

Guy's Hospital

G. O'Gorman, c. Turner, b. Walker	12
O. G. Lane, c. Grundy, b. Walker	5
L. G. Morey, b. Bate	25
F. K. Johnson, b. Bate	24
P. H. Birks, not out	73
A. D. Willis, c. Bate, b. Turner	25
C. L. T. McClintock, c. Bate, b. Walker	1
H. Jones-Lewis, c. Jones, b. Cook	22
R. M. de Gregory, b. Cook	3
Extras	9
Total for 8 wickets declared	199

H. A. Thomas and W. Wylde did not bat.

Guy's v. Malden Wanderers

GUY'S lost to Malden Wanderers on July 6th at Malden. Guy's won the toss and T. D. Ridsdale and L. G. Morey took the score to 47 before Morey was caught for 20. Ridsdale was then partnered by H. Jones-Lewis, who took the score to 66 before Jones-Lewis was bowled for 20. Ridsdale then fell to a catch by H. E. Avery, having batted very well for 36. A collapse followed, and the Guy's total eventually reaching 134.

Malden lost their first wicket at 24, but H. E. Avery and J. B. Hobbs, the England cricketer, took the score to 85 before Hobbs was stumped by H. A. Thomas off the bowling of G. O'Gorman.

Three more wickets then fell quickly, and, with the score at 105 for five, Guy's still had a sporting chance. However, I. Rough and B. Elworthy batted steadily, and Malden passed the Hospital total for the loss of five wickets.

Scores.—Malden Wanderers, 217 (J. Rough, 60; J. B. Hobbs, 40; W. Wylde, 4 for 44) for 5 wickets.

Guy's

T. D. Ridsdale, c. Avery, b. Rough	36
L. G. Morey, c. Elworthy, b. Rough	20
H. Jones-Lewis, b. Avery	20
G. O'Gorman, b. Rough	3
T. J. M. Lowry, b. Field	1
F. K. Johnson, b. Field	0
O. G. Lane, b. Field	11
H. A. Thomas, b. Fryer	21
C. L. T. McClintock, l.b.w. Field	0
F. W. Rushby, b. Elworthy	8
W. Wylde, not out	0
Extras	19
Total	134

Guy's v. Gravesend

GUY'S beat Gravesend on July 15th by 67 runs. G. M. A. Brown, on returning to the side after an absence of two weeks, won the toss and elected to bat.

Four of the Hospital wickets fell for 57, of which Brown made 30, but H. Jones-Lewis and T. J. M. Lowry, playing forcing cricket, added 50 runs, Jones-Lewis making 47. Lowry was then joined by C. L. T. McClintock, who proceeded to hit two sixes, and Guy's were able to declare at 188 for eight wickets, Lowry being not out 59.

Gravesend, on batting, lost wickets at regular intervals, but, with the score at 106 for seven with fifteen minutes to go, the game seemed likely to end in a draw.

However, A. L. Young, who had been bowling very well, clean bowled two men, and bowled the last man with the second last ball of the day.

The Gravesend score totalled 121, and Guy's won a very exciting game by 67 runs.

Scores.—Gravesend, 121 (A. L. Young, 4 for 23.)

Guy's

G. M. A. Brown, b. Shadick	30
T. D. Ridsdale, l.b.w. Shadick	1
G. O.'Gorman, c. Hicks, b. Brisley	5
L. G. Morey, c. Humphreys, b. Langman	9
H. Jones-Lewis, c. Wright, b. Brisley	47
H. D. Foster, b. Clarke	4
T. J. M. Lowry, not out	59
R. L. Evans, c. Adams, b. Brisley	13
C. L. T. McClintock, not out	20
Extras	0
Total for 8 wickets declared	188

A. L. Young and W. Wylde did not bat.

Golf

Guy's v. Royal Wimbledon

ON June 17th, a match was played against Royal Wimbledon. This match was arranged through the kindness of Dr. Knott, and resulted in a win for Guy's, 6½—5½.

FOURSOMES

S. M. Whitteridge & B. C. M. Reed (2 up)	1	W. E. Newton & F. A. Knott	0
A. E. Parrott & P. Wilson	0	C. D. Rotch & A. A. Berry (4/3)	1
P. Spooner & S. McCullin (1 up)	1	D. V. Tomson & J. E. O'Loghan	0
R. D. Roberts & J. Dossor (6/4)	1	D. S. Rose & R. McCullum	0
Total	3		1

SINGLES

B. C. M. Reed (2 up)	1	N. C. Carver	0
A. E. Parrott	0	C. D. Rotch (4/2)	1
P. D. Spooner	0	F. A. Knott (2/1)	1
S. M. Whitteridge	½	R. Worth	½
S. M. McCullin (2/1)	1	D. V. Tomson	0
P. Wilson (6/4)	1	A. A. Berry	0
R. D. Roberts	0	S. Rose (4/3)	1
J. Dossor	0	R. McCullum (2/1)	1
Total	3½	Total	4½

Staff v. Students

ON Wednesday, July 22nd, at Royal Mid-Surrey, the annual match was played between the Staff and the Students. The match resulted in a win for the Staff by 6 matches to 5, with 1 halved.

SINGLES

L. Bromley	1	B. C. M. Reed	0
F. A. Knott	0	S. M. Whitteridge	1
O. Morgan	½	C. L. Blacklock	½
H. Chapple	0	P. Wilson	1
W. Doherty	1	P. A. Gardiner	0
E. C. Hughes	1	F. J. R. Stoneham	0
T. A. Harris	0	E. S. Foote	1
H. Cameron	1	A. L. Young	0
Total	4½	Total	3½

FOURSOMES

L. Bromley & F. A. Knott	0	B. C. M. Reed & S. M. Whitteridge	1
W. Doherty & O. Morgan	1	C. L. Blacklock & P. A. Gardiner	0
E. C. Hughes & H. Cameron	1	A. L. Young & F. J. R. Stoneham	0
H. Chapple & T. A. Harris	0	P. Wilson & E. S. Foote	1
Total	2	Total	2

B. C. M. REED,
Hon. Sec., G.H.G.S.

Hospital Information, etc.

Pass List

UNIVERSITY OF LONDON.
SECOND EXAMINATION (M.B., B.S.) FOR MEDICAL DEGREES.

PART II. July, 1936.

P. H. Beales	B. Levin
A. D. Bell	N. L. McNeil
L. J. Blay	D. A. Osborn
A. R. Bradley	C. W. Peck
H. P. Brown	T. G. Pritchard
D. M. F. Carter	C. J. St. Cin
A. E. J. Etheridge	M. K. C. Shrapnell
F. N. Glover	G. F. Smart
M. F. Hart	I. M. G. Stewart
W. J. T. Howard	J. M. W. Wells
G. C. Kennedy	J. A. Yates

Papers by Guy's Men

George G. Exner. Fractured roots and their surgical removal. *Brit. Dent. Jour.*, 1936, lxi, 68.

R. T. Grant, R. S. Bruce-Pearson and W. J. Comeau. Observations on urticaria provoked by emotion, by exercise and by warming the body. *Clinical Science*, 1936, ii, 253.

L. J. Witts. The paroxysmal hæmoglobinurias. *Lancet*, 1936, ii, 115.

A. H. G. Burton and Another. Puerperal surgical scarlet fever. *Lancet*, 1936, i, 1110.

W. H. Ogilvie. Prognosis of inguinal hernia. *Lancet*, 1936, ii, 204.

C. H. Fagge. On hare lip. *Austr. and N.Z. Jour. Surg.*, 1936, v, 359.

—— On the function of a college. *Ibid.*, 399.

J. B. Blaikley and G. F. Gibberd. The prevention and treatment of atelectasis in the new-born child with particular reference to the use of a new inclined receiving table. *Proc. Roy. Soc. Med.*, 1936, xxix, 1189; Joint Discussion No. 5.

W. E. Herbert. (1) An unerupted supernumerary tooth causing death of the pulp of a central incisor; (2) Congenital abscess of teeth; (3) Two cases of fracture of the roots of two incisors where the pulps have remained vital. *Proc. Roy. Soc. Med.*, 1936, xxix, 1097-1098 (Sect. Odontol.).

J. B. Parfitt. Subgingival fracture of upper central incisor without death of pulp. *Ibid.*, 1106 (Sect. Odontol.).

George T. Hankey. (1) Bilateral perforation of the antrum and nose into the mouth, following chronic destructive osteomyelitis of the maxilla; (2) Osteomyelitis of mandible, complicated by septicæmia and secondary abscess of elbow and hip. *Proc. Roy. Soc. Med.*, 1936, xxix, 1099, 1102 (Sect. Odontol.).

Nursing News

THE following Nurses have passed the Final Examination of the General Nursing Council and their names have been added to the State Register :—

M. E. Barker	G. T. K. Laslett
A. M. E. Barkley	B. I. Lavers
B. M. L. Boxall	M. P. McManus
E. M. Britton	J. W. MacNab
E. R. Cooper	D. E. Nicholson
M. E. Crawford	P. A. D. Nicoll
M. E. Cunliffe	M. H. Palmer Roberts
M. D. Davidson	M. E. Parks
K. E. M. Davies	J. M. Parry
K. H. Farraud	J. I. Pedley
M. Flegg	J. M. Potter
D. M. Fletcher	M. E. G. Price
A. B. Flint	M. A. Robey
M. C. Fuller	M. Rowlands
I. M. Godfrey	P. M. Scanlan
S. M. Greaves	M. E. Seery
F. P. Hemming	N. E. Steeds
E. M. Hoadley	M. G. Stockdale
A. J. T. Huggard	M. E. Taylor
N. Hughes	E. M. Wilson
J. St. J. Inman	

Affiliated Training.—

E. Croucher	D. Watkins
D. Evans	

Birth

HERBERT.—On June 23rd, 1936, at Elizabeth Garrett Anderson Hospital, to Joyce Herbert, M.B., B.S. (née Clogg), wife of W. E. Herbert, M.R.C.S., L.D.S., of Newlands, Worcester Road, Sutton—a daughter.

Marriage

SHUTTLEWORTH—CUSHING.—On May 9th, 1936, at Southwark Cathedral, Cyril William Thomas Shuttleworth to Yvonne Alicia Cushing.

Death

DODD.—On July 19th, 1936, at 19, Lowther Road, Bournemouth, Dr. A. H. Dodd, formerly of Hove, Sussex.

EDS. {M.A.P. A.G.W.H.

GUY'S HOSPITAL GAZETTE

A Journal of Medicine, Surgery, Dentistry and Hospital News.

PUBLISHED FORTNIGHTLY.

Volume L — *15th August* 1936 — *Number* 1254

PASSIM

IN the three weeks that have elapsed since the Appeal was launched the sum of money raised has reached between thirty-two and thirty-three thousand pounds. That is to say that the rate at which money accrued during the first fortnight has been more than maintained. The gift from the Citrus Co-operative Company, which we mentioned in our last number, has arrived, and we would again express our thanks to these South African friends who have given this lively expression to their gratitude for a service rendered them by Guy's men many years ago. Messrs. Mosenthal, their London agents, have also most generously contributed, and we are grateful also to them. A welcome gift of five thousand pounds has been received from Lord Dulverton, and among the many smaller sums from generous givers one has been received from a schoolmaster who was weaned from one of his ordinary charities by our booklet, which he said "was both artistic and artful."

So the sum of money continues to mount, though our half-million is not nearly yet in sight.

SINCE it is August and the Medical School is on vacation, work has been begun on the Spit, and is to be completed before the end of the month. The death throes of that horrible old room started on a wet, grey day last week, when we found the men hard at work digging up the floor with shovels. A curious aroma reached our nostrils as the pieces of parquet were uprooted: cockroach, and sugar bun, tar and black beetles' blood. Was there ever such a smell, or such a room? Even the future spit will leave much to be desired, but at least the colour scheme, the new arrangement, and new furniture seem to us more than tolerable. We were horrified to read in the current number of the St. Bartholomew's Hospital Journal, a letter from one of our predecessors of the Guy's Gazette who had spent some short time of his youth at Bart's. He writes "... congratulations on a College which will now be as superior as the old College was terribly inferior—in material respects—to that at Guy's." Well, well, this makes us gush with brotherly compassion. Poor Bart's, how could you have stood it for so long?

SYDNEY SMITH, and it is perhaps necessary to add that we refer to the eminent divine, not the medico-legal expert, is said once to have made some remark to the effect that though he might not lay down his life for his beliefs he would fight tooth and nail for Fortnum and Mason's. A somewhat similar feeling is roused in ourselves on reading, on the day of going to press, the *Evening Standard*. Here we find the appalling news that there is serious alarm about the demolition of the Ship and Shovel. It comes as something of a surprise to read the special correspondent describing this part of the college as a "famous old London tavern," as a "surgeon's solace," and as a "ward-from-ward," for to us it is just the Ship, and as necessary a part of the Hospital accommodation as the rest of the college. Indeed, from the much that we have written about the college, our readers may deduce that to many the Ship forms the one attraction of our dreary doss-house. And the *Evening Standard* breaks the news to us (for we had heard nothing of it before) that the ground lease shortly lapses, and that there is danger of demolition. Well, we knew and have said before that Maze Pond has been condemned and is shortly to be pulled down, and we have based on this the possible hope of rebuilding and extending the college on the other side of the street, but we had no idea that such destruction was to involve our treasure ship. Gentlemen, we cannot think that this is the case; it might well be the subject of a further and greater appeal.

The special correspondent of the *Evening Standard* has more to say. He tells us that the name originally was the "Ship and Sir Cloudesley Shovel," which we believe to be true, whether

the brass plate in the bar inscribed with his name is a proof or not. And he also talks of our famous table, from which he evolves the picturesque story that Guy's students on the day of their qualification carve their initials upon it, while standing drinks. This, as would be the amount of drink, is too much to swallow, and if the number of initials represents the number of students qualified over the hundred years which he ascribes to the table, the special correspondent has a very unflattering idea of the teaching powers of our medical school. Mrs. Bones is represented as having said to him that whenever a member of the profession disgraces himself the others come and cut out his initials. Well, we've never seen them come (who are "they"?), but it's a pleasant idea, even if in its conception the past has been merged a little into the present. And we owe the special correspondent a debt, for having drawn our attention to a most alarming contingency. But neither the proprietors nor Barclay's know anything about it, so we hope he is only an alarmist.

MR. THOMPSON delivered his last clinical lecture to a large audience in the Anatomical Theatre last week. We shall much miss Mr. Thompson's remarkable rhetorical powers; he was one of the very few speakers of our acquaintance who was able to make members of the audience feel that he was addressing them individually; many a conscience has quaked, and many a young man, innocent as yet even of qualification, has inwardly been smitten with remorse, and has felt that in some obscure way he was himself to blame, when in the course of a lecture Mr. Thompson has held forth on the frequency of this or that professional error, or has deplored this or that tendency in medical practice. We are fortunate in having secured Mr. Thompson's last lecture for future publication, and hope that it is not the last communication that he will give us.

WE have lately been informed that in addition to the fixtures for next season, 1936-1937, arranged by the Rugby Football Club, and lately published in these columns, the following matches will be played in the course of a tour arranged in the Liverpool district :—

Thursday, Jan. 7th, 1937 Waterloo.
Saturday, Jan. 9th, 1937 Birkenhead Park.
Monday, Jan. 11th, 1937 Liverpool University

WE regret to record the deaths of Sir Alfred Keogh, Dr. A. H. Dodd, of Hove, and Dr. R. H. Foster, of Porlock. Obituaries of Dr. Dodd and Dr. Foster appear elsewhere. We hope to publish an obituary of Sir Alfred Keogh in our next issue.

WE wish to congratulate Mr. A. Ruscoe Clarke on being elected to the Leverhulme Travelling Fellowship in Medical Science. This is awarded by the Medical Research Council and we understand that he leaves us to work under the Professor of Urology at the Peter Bent Brigham Hospital, Harvard, Boston. Mr. Ruscoe Clarke was at one time House Surgeon to Mr. Steward, and on completing the usual house appointments, returned to the Medical School as a demonstrator of anatomy. Here he dealt successfully with both primary and final fellowship examinations in an incredibly short time and thereafter assisted Mr. Doherty with his operative surgery classes.

In 1935 he was elected a Surgical Registrar and the popularity of his rounds bears a convincing testimony to the quality of his teaching. We feel sure that our readers will join us in wishing him success in this venture.

WE have observed that a tablet has recently appeared in the main out-patient hall, drawing attention to the fact that the out-patient block constructed in 1931 was made possible through the generosity of Lord Dulverton, whose more recent gift we have already mentioned. Whether or not the tablet was there before we do not know, but we think it was put in position by some unseen hand during the night.

MR. ST. JOHN RUMSEY is well known for his work on defective speech, but it is perhaps not so widely known that he is also an authority on heraldry and numismatology. Elsewhere in this number we publish an article by him on the subject of coins which we hope will prove of interest to many. It is not often, perhaps not often enough, that we publish articles entirely apart from medicine and surgery. We are informed, however, by yet another authority, that a surprisingly high proportion of numismatologists and those who attend sales of coins are medical men. It may be that we, perhaps the most poorly paid of any profession, find thus an outlet for our avarice. Such of our readers as are students of coinage will find in the article a guide to their collecting; those who are not will learn something of a little explored subject, for which they should be grateful.

THE following appointments, to start from August 16th, have been made :—

House Physicians—

To Dr. Marshall—Mr. D. N. Leeming.

To Dr. Poulton—Mr. G. J. van der Merwe.

House Surgeons—

To Mr. Slesinger—Mr. T. G. Humby.

To Mr. Davies Colley—Mr. W. W. Cashmore.

House Surgeon to the Ear, Nose and Throat Department (Mr. Layton) :—
Mr. A. G. W. Hill.

House Surgeon to the Genito-urinary and Orthopaedic Departments (Mr. Thompson, Mr. Lambrinudi, Mr. Stamm) :—
Mr. F. L. E. Musgrove.

The other appointments are :—

Out-Patient Officers—
Mr. C. S. Darke. Mr. H. R. S. Harley.
Mr. D. R. Freebody. Mr. G. N. Wright.

Assistant House Surgeons—
Mr. J. M. Brown—to Mr. Ogilvie.
Mr. G. D. Channell—to Mr. Doherty.
Mr. W. M. Philip—to Mr. Grant Massie.
Mr. J. A. T. Griffiths—to Mr. Eckhoff.

Obituary

DR. REGINALD HENRY FOSTER

(*With acknowledgements to the "Bridgwater Mercury"*)

DR. Reginald Henry Foster, an esteemed Porlock resident, who was well known in the Exmoor country, where he had hunted for half a century, died at his residence, Peep-out, in the Hawkcombe Valley, in his 85th year.

Dr. Foster, a native of Knowle, in the county of Warwickshire, was the third son of the late Mr. and Mrs. Frederick Foster, of Brighton. He received his medical training at Guy's Hospital, London, where he was a house-surgeon, and practised at Knowle for about forty years, retiring in 1907. He was then presented by the people of Knowle with an inscribed piece of plate in token of appreciation of his services to the community, and his wife, who died eight or nine years ago, was also made a presentation. While at Knowle, Dr. Foster was prominently associated with the Warwickshire Hunt, and for some years before taking up residence at Porlock, on his retirement, he was a frequent visitor to Porlock and Minehead, hunting with the Devon and Somerset Staghounds and the Exmoor Foxhounds. He was a member of the Guarantee Committee of the Staghounds and of the General Committee of the Foxhounds, and was a keen supporter of both Hunts, hunting being his principal recreation and hobby. During the Great War, Dr. Foster was a surgeon at Hollymoor Military Hospital, Birmingham.

DR. ARTHUR HERBERT DODD

(*Reprinted from the "British Medical Journal"*)

DR. Arthur Herbert Dodd, who died at Bournemouth on July 19th, aged 78, had practised for many years at Hove. He studied medicine at Guy's Hospital, qualifying as L.S.A. in 1883, and obtaining the L.R.C.P. and M.R.C.S. diplomas in 1884, after which he served as clinical assistant at the Evelina Hospital for Children. Dr. Dodd joined the British Medical Association in 1886, and had been in continuous membership for fifty years. After retirement from active work he made his home in Lowther Road, Bournemouth, and became a member of the local Division.

Lumbago

A Clinical Lecture delivered at Guy's Hospital on Friday, 7th August, 1936, by Dr. A. H. Douthwaite

GENTLEMEN,—Lumbago is a familiar complaint, and worthy of your knowledge. It has been defined as a rheumatic affection of the muscles of the lumbo-sacral region, occurring in both an acute and a chronic form.

With regard to its ætiology, there is no doubt that exposure to cold is an important factor: I do not mean a general exposure of the whole body to cold, but a localised exposure. To give you a familiar example—sleeping in a draught, while the jacket of the pyjamas has come apart from the trousers, will often result in acute lumbago. If chill is combined with strain, then the individual is more likely to develop lumbago. Again a homely example is that of the amateur gardener, who on return from his office proceeds to work in his garden in a stooping posture, so throwing a prolonged strain on back muscles which are normally not much used, and he may continue at it without noticing that the sun has set and a cold wind has sprung up. The effect of this

is not always experienced immediately. The provocative chill may not be followed by the acute pain for eight or nine hours.

There is also an association between sudden strain and lumbago. I am not sure that, here, we are not looking at two different conditions. An example is bending over the bed of a patient—particularly the modern type of bed—during examination. Suddenly one may be seized with a violent pain in the lower back, usually to one side only; and at the same time that that pain develops one may be conscious of a click or a snap, just as if something had suddenly given way, and from then onwards there is rigidity and pain, typical of lumbago. The victim presents, on examination, the same picture as that of a patient with classical lumbago arising from chill and fairly prolonged muscle strain. It is tempting to assume that in the cases of sudden onset of lumbago there may be a mechanical factor, as opposed to a rheumatic one. Bone-setters consider that there occurs a shift of one of the bones in one or other articulation, and that the trouble can be cured by mechanical means. It is difficult to prove, because if there is a shift in the surfaces of the sacro-iliac joint, it must be too small to demonstrate by means of X-rays. But in support of the mechanical theory in cases associated with a loud snap is the fact that in some there may be complete recovery from manipulation in about five minutes. But that is true of only a certain proportion. The remainder of the cases start as if they were mechanical, but they progress like ordinary lumbago. So if we are faced with a case of the kind with an acute onset which is curable by manipulation, it should not be termed lumbago. It is more likely to be an acute sacro-iliac strain. But it is not every case of strain and chill which develops lumbago; in fact the next important point in ætiology is that the patient is usually not quite fit. A man who is tired, particularly at the end of a long winter, when his resistance is low, is then very liable to develop lumbago. We can postulate all sorts of reasons why, as we think, it should be so, but none of them are capable of proof as yet.

I have left late in the ætiology the mention of sepsis, and that is because I do not think that focal sepsis is important in the production of lumbago. Occasionally we find cases of recurrent lumbago associated with some fairly gross focal sepsis, particularly of the teeth, and when that sepsis has been cleaned up the patient has no more attacks of lumbago. That, however, is an exception. Gross sepsis should be treated in any case, but do not expect too much from it.

Finally, in regard to ætiology, we have to remember that gout is still with us. We do not often see, nowadays, typical gout, as in the irritable old gentleman who has habitually drunk too much alcohol all his life, and then is seized with acute pain in the big toe. That sort of thing was common forty years ago, but it is a rarity now. But gout, in a somewhat masked form, does still exist, and it can only be detected by measuring the uric acid in the blood. Normally, this is 1.5 to 3.5 mgms. per 100 c.c. of blood. It will have to be 4.5 or more before you regard it as possible gout. But if in association with recurrent lumbago the uric acid is 5 or 5.5, it is probable that gout is the basis of the lumbago. Naturally that is a matter of importance, because if you treat gout effectively, the lumbago will not return. Bear that in mind, because the more rare acute gout becomes, the less is it likely to be thought of in relation to any so-called rheumatic manifestations.

I shall now make brief reference to chronic lumbago. This, almost always, results from repeated attacks of the acute form; it is not a separate disease. A person who has had recurrent attacks reaches a stage when he is never quite free from discomfort and stiffness. Occasionally lumbago is chronic from the start. If you suspect chronic lumbago and there is no history of repeated attacks of the acute condition, you may find some organic disease of the spine: usually osteo-arthritis.

How can we explain lumbago? Why does a patient get this agonising pain which prevents him carrying out certain movements? The assumption is that there is a change in the tissue fluids of the muscles and connective tissues which results in irritation of the nerve ends. This change is brought about by a local failure of the capillary circulation, and there is a fall in the local metabolic rate. With this fall the ordinary oxidative processes are retarded so that sarcolactic acid accumulates and produces nodule formation by a change in the physical state of the tissue fluid. There is something to be said for this view; the treatment of acute lumbago aims at improving the local circulation; and the more you flush that area with blood, the more certainly will you cause a disappearance of the symptoms. Lumbago often follows exercise after a long period of rest, because the metabolism of the muscles has not become trained to the speed-up entailed by this exertion.

The nodules can be definitely felt, but if an excised nodule is microscopically examined, no morphological characteristics will be apparent; there is nothing more to see than in an ordinary

excised piece of muscle. There is gel formation but no cellular infiltration. It is another matter in the case of chronic lumbago. It is the nodule which is the centre of the pain.

When gout plays a part, presumably we are dealing with a deposition of sodium biurate. The pain of gout is due to the deposition of these highly insoluble crystals, which set up acute inflammation.

The symptoms of lumbago are simple: First, acute pain, and the pain generally starts on one side of the middle line, coming on suddenly, agonising in intensity. Frequently it will radiate round the body, in girdle fashion. Usually it starts in one of the erectores spinæ, whence it spreads over other parts, sometimes extending as high as the lower dorsal region. Second, there is a tendency to immobility, because certain movements of the body are very painful. The attitude assumed by the patient is a slightly forward flexion of the trunk, the head being thrown back in the attempt to maintain the erect posture. The spinal curve is obliterated, and if an attempt is made to straighten the back it causes a sharp stabbing pain. Sometimes the patient is unable to stand up. On lying in bed he has comparative comfort; but if turned on his face acute pain returns.

The only other point to mention about the symptoms is that the pain of lumbago, though made worse by movements, is ultimately aggravated by rest. If you have lumbago when you wake up and you force yourself to move about, you will feel much better as the day goes on, though an ache persists. After a night's rest, however, the pain returns in full force.

Alcohol aggravates the pain. The severe pain of lumbago often drives the patient to alcohol, which gives temporary relief, for both exercise and alcohol cause dilatation of the superficial vessels. The final result of an alcoholic bout is disastrous, however. Although theoretically—based on the teaching of pharmacologists—we are told that all forms of alcohol have the same effect, the degree depending on the strength, we know, practically, that different forms have different effects. Champagne is one of the worst drinks for rheumatic people as also for the gouty subject.

With regard to the course of lumbago, it clears up usually in a week, sometimes in three days.

The most important part of this subject is that of differential diagnosis. It may seem strange to you, but I have seen, as have most people who have been in practice for some time, patients who were supposed to have acute lumbago but were found to have a new growth of the spine. A common source of secondary carcinomatous deposit in the lumbar region is carcinoma of the breast; this may have been completely overlooked, even though a large scirrhus carcinoma may be present. There is a big difference between the pain of lumbago and that of a growth in the spine. In the latter, if the patient turns over in bed, the agony is excruciating. This is not so in lumbago, for once the patient is lying in bed he will have twinges, but there is no terrible pain on change of position. New growth in the back will often cause bilateral pain radiating down the legs. This should always suggest organic disease.

Tuberculosis of the spine must be considered, but it is not likely to cause the sudden onset of acute pain. Moreover the general age of tuberculosis of the spine is not that of lumbago. The former occurs mostly in young people, the latter in those of about 35 years of age, or more. In new growth you find the vertebral spines are tender, and also in tuberculosis, but in lumbago the spines are never tender, though the adjoining muscles are very much so.

Another "catch" is infective endocarditis. It is associated with embolic phenomena, and emboli may occur in any part of the body. Emboli in back muscles will cause acute and sudden pain, spasm of the muscles and tenderness, and you may not necessarily be able to observe hæmorrhagic points. There may be subacute bacterial endocarditis, with very little in the way of signs, and the first symptom may be lumbago. But you will not be caught out if you remember that in a case of endocarditis there is usually a demonstrable heart lesion, some fever, a little blood in the urine, clubbing of the fingers, and leucocytosis (not invariable).

There is only one other point we need consider in this matter of differential diagnosis, and that is perinephric abscess, which is generally the outcome of staphylococcal fever. It is not a primary disease, but a final expression of infection by the staphylococcus aureus. There may be a large perinephric abscess without local swelling for several weeks. Helpful points are that perinephric abscess is unilateral and is always associated with fever. Leucocytosis is always present. In staphylococcal fever the white cells are about 12,000, whereas there is not this change in rheumatic infections of this type.

The differential diagnosis of chronic lumbago is more difficult. First, it must be differentiated from osteo-arthritis of the spine. Clinically you cannot be certain whether you are dealing with a pure chronic fibrositis or a rheumatic condition.

The only answer is given by X-rays. But if there is chronic lumbago with no history of acute attacks, you should suspect that osteo-arthritis is at the bottom of it.

Next, Paget's disease (osteitis deformans). We were taught that this was a rare condition, but it is not. But it is rare to find it causing marked symptoms. Mild changes in the nature of osteitis deformans, in both the pelvis and the lower vertebræ, are very common in people over 60 years of age; you come across it in the course of routine X-raying of the spine in cases of backache.

Sacro-iliac strain may be confused with lumbago, but in this the tenderness is limited to one joint. In sacro-iliac strain there is extreme pain in the back if the thigh is flexed, or if it is extended. Cauda equina tumours cause confusion from time to time. Nearly every case of cauda equina tumour is manipulated under the idea that it is chronic lumbago. The peculiarity about cauda equina tumour if it causes backache is that the patient has an extended lumbar spine; this is rigid, and he has a fixed lordosis, so that head and shoulders are thrown well back. That is not the posture of a lumbago patient. From a careful examination of the nervous system you may find there is loss of ankle jerk, or disappearance of the anal reflex, or loss of perineal sensation. In the presence of pain radiating into both thighs, if X-ray shows nothing you must do lumbar puncture.

There is only one common complication of lumbago, and that is sciatica. A large proportion of cases of sciatica give a history of having started with lumbago. Sciatica is, almost always, unilateral. Presumably the rheumatic infection spreads down and gets into the intervertebral foramina. The prognosis then alters at once, for acute sciatica means six weeks instead of a few days.

There is another possible complication, and that is, that a patient with chronic lumbago may develop osteo-arthritis as a result. He holds himself wrongly; there are abnormal stresses on the joints, and these may finally become osteo-arthritic.

Treatment. For acute lumbago, exercise and heat are the two main principles. Because of the pain, exercise is impossible except with the strong-minded, unless the pain is not very severe. If it is a mild attack, vigorous forced movement for twenty minutes may cause the pain to disappear, and it may never come back. That fact is strongly against it being a disease due to microbial infection. Usually we must apply heat and artificial exercise, *i.e.*, massage. It must be deep massage, which will probably make the patient yell. Give it for half an hour morning and night. It is not necessary to have a diathermy apparatus, or infra-red rays, you can use a hot-water bottle or an ordinary poultice for the purpose of heating the back.

If the patient is developing sciatica, do not use diathermy; early sciatica treated with diathermy is generally aggravated by it.

In cases of chronic lumbago there are adhesions, causing a stiff spine, and the only treatment of that is vigorous manipulation under an anæsthetic. Two or three hours after coming round, the patient should have massage and movements. In a bad case recovery may take as long as six months. Obese patients must be reduced. No fat person over 40 years of age holds himself properly; he is liable to become stiffer and stiffer, and to become more infiltrated with fat.

English Milled Silver Coinage

By H. St. John Rumsey, M.A.

WE are all familiar with the difficulties experienced in obtaining coins and the ease with which we can spend them, but there are some coins which are even harder to obtain and which, when obtained, cannot be spent. Perhaps it is because of this contrast that so many doctors become numismatists; their interest in this hobby is shown by the fact that about 25 per cent. of those who regularly attend the coin-sales in London are doctors.

Many collectors wisely begin with the silver coins from the year 1662, when the present method of making coins was permanently adopted. Until the year 1561 all the English coins were struck with a hammer; the silver was placed between two dies, obverse and reverse, and the upper die was struck several times with a hammer until it was thought that the silver had taken good impressions of both dies. In 1561 it was decided to use the French method of making coins with a mill, by which enormous pressure was applied and the coins made thus were much thicker and took the impressions of the dies very much more clearly. For the next twelve years both methods were used, but in 1572 the mill system fell into disuse and was not re-adopted and the hammer system discontinued until the year 1662.

From 1662 until 1816, with the exception of some half-crowns in the reign of William and Mary, the four denominations, crowns, half-crowns,

shillings and sixpences all had reverses similar to that of the florin of to-day, but the sceptres were not shown except on the gold coins. The variations in the reign of Charles II are as follows: There were four different busts on all coins but the sixpences, which are of one type and were issued between 1674 and 1684. On the crowns the first bust was used in 1662-63; the second, 1664-72; the third, 1672-80; the fourth in 1679 and 1681-84. On the half-crowns the first bust was used in 1663; the second in 1664; the third from 1666 to 1672, and the fourth, 1672-84. On the shillings the first bust was used from 1663 to 1668; the second, 1668 to 1883, with the exception of the years 1674 and 1675, when the third was used; the fourth in 1683 and 1684. In addition to these there are a few rare coins specially marked to denote the source of the silver from which they were minted. In 1666 an Elephant below the bust denotes the African Company, which was also represented in 1681 by an Elephant and Castle. There are also some other rare coins marked with Plumes on the obverse or reverse or both, to denote the Welsh mines. These special marks are shown on the reverses in the spaces between the shields and on the obverses below the busts.

In the reign of James II two busts were used as follows: On the crowns, the first in 1686 and the second, 1687-88; on the half-crowns the change was made in 1687. The shillings and sixpences are all of one type only, and there are no special marks.

During the joint reign of William and Mary crowns were issued in 1691-92. There were three types of half-crown: from 1689 to 1691 on the reverse the Royal Arms were shown in the form of a quartered shield as on our present-day half-crowns, but in 1689 the form of the shield was changed, the French and English Arms being shown in compound quarterings. In 1691 the design of the reverse reverted to the cruciform arrangement used in the last two reigns. The shillings and sixpences are of one type only.

After the death of Queen Mary a drastic step was taken with regard to the coinage. The old hammered coins were by this time so worn and clipped that they were being refused as legal tender, so they were called in. To ease the pressure on the London Mint and in order to issue the new coins within reasonable time, provincial mints were opened at Bristol, Chester, Exeter, Norwich and York. These provincial mints issued all denominations with the exception of crowns; the coins minted in the provinces were marked with the initial letters of their mints under the busts.

The crowns are as follows: In 1695-96 the first bust was used, and the Irish harp on the reverse is what is called the "early harp." It is important to understand the three types of harp, because during the remaining years of William III the chief differences are in the harp. If you hold the coin so that the date is at the top, the lower curve of the harp is much longer than the upper one in the case of the early harp. In the case of the "ordinary harp" both curves are the same length and both end with knobs. The "late harp" shows, instead of knobs, two curves both turning towards one another. In 1696 some crowns were issued with the second bust and others with a variation of the second bust, but these two are so rare that the ordinary collector is not likely to meet with them. In 1696 the third bust was used with the early harp, and in 1697 the harp was changed to the ordinary harp, but this coin is again extremely rare. The last is the 1700 crown with the late harp. Thus, although six different crowns were issued, most collectors will have to be content with three.

The half-crowns of William III are twenty-one in number. In 1696 the bust was slightly different from those that followed, and there are three reverses, the small shields, the early harp and the ordinary harp. No other London varieties appear until 1701, when there were a few coins with Plumes on the reverse and a few with the Elephant and Castle below the bust. These are the six London varieties. Three varieties were issued from each provincial mint (B, C, E, N and y), the small shields, early harp and ordinary harp. Fifteen provincial coins.

There are twenty-nine different shillings, nine minted in London. In 1695 to 1697 the first bust is combined with the early harp reverse; in 1697 to 1698 the third bust is with the ordinary harp and also the small lions; in 1698 the fourth bust was used, and in 1699 the fifth bust. There are also rare coins with Plumes on reverse, Roses on reverse, a Plume below the bust, and an Elephant below the bust.

Four varieties were issued from each of the provincial mints. In 1696 an early harp; in 1697 an ordinary harp, and the third bust was used, and small lions: a total of twenty provincial varieties.

There are twenty-two sixpences, of which seven were minted in London. In 1695 the first bust with the early harp; in 1696 the first bust with the late harp; in 1697 the second bust (this is very rare). In 1697 the third bust was used with the late harp; in 1698 to 1699 Plumes on the reverse; in 1699, Roses on the reverse, and in 1700 a Plume below the bust; the last three are rare. Three varieties were issued from each

provincial mint; in 1696 the first bust with the early harp; in 1697 the first bust with the late harp, and in the same year the third bust was used. During this reign coins to the value of £5,091,000 were minted in London, and to the value of £1,792,000 in the provinces. A special house tax was imposed to meet the additional cost, estimated at £1,200,000.

The twelve years of Anne's reign offer the keen collector considerable scope for his hobby. The most important change is the impalement of the English and Scottish Arms in 1707 to commemorate the union of the parliaments, while the capture of Vigo and the Spanish ships carrying silver from which the coins of 1702 and 1703 were minted is commemorated by the word "Vigo" below the bust. Other coins have Plumes on the reverse between the shields to denote the source of the silver, and there are others with alternate Roses and Plumes to denote a different source. Every collector will find it necessary to carry a small note-book when looking through coins with a view to purchase or exchange. Such a book contains the complete range and mentions the condition of such coins as are already in the collection.

The coins of this reign are so complicated that they are best shown in note-book form. Here is a copy of four pages of mine :—

ANNE

5s.

1	1	1703, Vigo. VF
1	1	1705, Plumes. EF
1	1	1706-07, R. & P. EF
2	2	1707-08, Plain. EF
2	2	1708, Plumes. VF
3	2	1713, R. & P. FDC

6d.

1	1	1703, Vigo. EF
1	1	1705, Plain. EF
1	1	1705, Plumes. VF
1	1	1705-07, R. & P. VF
1	2	1707-08 and 1711, Plain. VF
1	2	1707-08, Plumes. M
1	2	1710, R. & P. EF

2s. 6d.

1	1	1703, Plain.
1	1	1703, Vigo. EF
1	1	1704-05, Plumes.
1	1	1706, R. & P. F
2	1	1707, R. & P. VF
3	2	1707-09, Plain. VF
1	2	1708, Plumes. VF
3	2	1708, Plumes.
3	2	1710-14, R. & P. VF

1s.

1	1	1702, Plain. VF
1	1	1702, Plumes. VF
1	1	1702, Vigo. VF
2	1	1703, Vigo. EF
2	1	1704-05, Plain.
2	1	1704-05, Plumes. F
2	1	1705-07, R. & P VF
3	2	1707-09 and 1711, Plain. FDC
3	2	1707-08 and 1711, Plumes. VF
2	2	1708, R. & P.
3	2	1708-10, R. & P. EF
4	2	1710-14, R. & P. VF
4	2	1711, Plain. FDC

Notes.—The first figure denotes the bust. The second, pre- or post-Union. The dates of the type follow and the initials VF, EF, etc., denote the condition of the coin. *These letters are used in all coin catalogues, FDC means mint condition, and the others are in descending order of merit—EF, VF, F, M, P.*

KEY TO PLATE

The author is indebted to Messrs. Spink & Son, Ltd., for the kind loan of the blocks for the illustrations. The coins shown are: 1 and 2—Charles II, crown and its reverse. 3 and 4—Victoria "Gothic" crown and its reverse. 5, 6 and 7—William and Mary half-crowns: Second shield reverse (compound quarterings); First bust, and third (cruciform), reverse. 8, 9 and 10—Anne half-crowns, reverse pre-Union, roses and plumes, Vigo bust and reverse post-Union, plain. 11 to 14—George III shillings, "Northumberland" and its reverse, and third bust with its reverse. 15 and 16—William III sixpences, first and third busts. 17 and 18—Charles II sixpence with its reverse. 19 to 23—George IV sixpences; First and second busts, and first, second and third reverses. 24—Victoria groat.

The coinage during the reign of George I is very easy, but on the reverse will be seen the arms of Hanover. There are two crowns, one with Roses and Plumes on the reverse, the other with S.S.C. denoting the South Sea Company. The half-crowns were issued like the crowns. On the shillings the bust was changed in 1723, they are as follows: 1715 to 1723, first bust Roses and Plumes; 1720-21, Plain; 1723, S.S.C., first and second bust; 1723 to 1727, Roses and Plumes and 1723 to 1727, W.C.C. These last are very rare. There are two types of sixpence, Roses and Plumes and S.S.C.

During the thirty-three years of the reign of George II there were two busts, the change being made in 1743. When in mint condition the coins of this reign are extremely decorative, the portraits being in very high relief, so they very easily become rubbed. There are five crowns: Young Head—Roses and Plumes, Young Head—Roses, Old Head—Roses, Old Head—Lima (below the bust) and Old Head—Plain. "Lima" shows that the coins were minted from silver taken by Admiral Anson from Spaniards in South America. The issues of half-crowns were similar to those of the crowns. There are seven types of shillings; on the reverses of the Young Head are: Plumes, Roses and Plumes, Plain and Roses, while on the reverses of the Old Head there are: Roses, Plain and Lima below the bust. The sixpences follow the order of the shillings.

The most remarkable fact about the reign of George III, which lasted for sixty years, is the departure from normal issues. In 1763 was

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issued a shilling, known as the "Northumberland," for distribution when the Earl of Northumberland entered Dublin as Lord Lieutenant; this coin is comparatively rare. In 1787, after twenty-seven years of the King's reign, a large number of shillings and sixpences were minted. As these coins are nearly always in mint condition they cannot have been used as ordinary currency, but were probably kept as curios. It should be noted that there is a slight variation, some have an ermine "field" in the right side of the Hanoverian arms, in others the field is plain. It appears that there was a considerable shortage of coins of larger denominations, because at this time Spanish dollars were counterstamped with the head of George III and issued for circulation. A certain number of sub-divisions of the dollar were similarly stamped and issued. In 1803 the Bank of England obtained permission to issue dollars and coins of lesser value, but it was not until the year 1816 that a complete new coinage was undertaken and half-crowns, shillings and sixpences were minted with entirely fresh designs. On the reverse of all these coins the Royal Arms are shown in a single shield as on the half-crowns of to-day, but it must be noted that for the first time the Arms of France are omitted, and the arms of Hanover are on a small shield superimposed on the main shield. In 1817 the coins were again altered; crowns were issued for the first time since the last issue of George II in 1758, an interval of sixty years. For the first time St. George and the dragon appear on the reverse of the crowns, while the portrait and the reverse of the half-crown were altered slightly. It should be noted that all coins from the year 1816 are still legal tender.

The coins of George IV are chiefly interesting on account of their designs. The portrait adopted at the beginning of the reign did not meet with the king's approval, so after five years a change was made and met with general approval. There are two crowns, the official one with the first bust and St. George and the dragon on the reverse; the other was strictly speaking a pattern which did not pass into general circulation. In the second the improved portrait was used, and on the reverse the Royal Arms are shown with heraldic mantling, a beautiful coin. There are three half-crowns, the first issued in 1820-23 has an artistic reverse of an entirely fresh design, which was used also on the shillings and sixpences. The second issue, 1823-25, uses the first bust, and reverts for the reverse to a design very similar to the first half-crown of George III. The shillings and sixpences are similar. Mention has been made above of the third reverse issued 1825-29. The third issue of shillings and sixpences show quite a new design on the reverse, the lion standing on a crown, under which the shamrock, rose and thistle are displayed.

The reign of William IV saw the issue of only one coin of outstanding merit; this was the half-crown with an excellent portrait and on the reverse the Royal Arms, round which was draped an ermine-lined cloak. This beautiful design was copied on a few pattern crowns which were not intended for general circulation; they are rare and expensive. The shillings and sixpences show on the reverse "One Shilling" and "Six Pence" respectively surrounded with a laurel and oak wreath and surmounted with a crown.

The groat was revived in 1836; it is worth 4*d*., but must not be confounded with a fourpenny-piece. The groat has Britannia on the reverse; Charles II first put her on the copper coins.

The most important change in the reign of Queen Victoria was the introduction of the florin in 1849, followed by the double-florin in 1887, when a new coinage was issued to commemorate the Jubilee. The Jubilee bust did not meet with approval, so a new series was designed and issued in 1893. It should be noted that the Hanoverian Arms are now omitted. There are four crowns, the first with the "Young Head" and on the reverse the Royal Arms. The second is strictly a pattern, but it got into circulation and was accepted as legal tender; it was copied from the design of the florin, and is one of the most beautiful of the English silver coins; it is known as the "Gothic" bust and was issued in 1847. The third was the Jubilee with St. George and the dragon on the reverse. It was issued from 1887 to 1892. The fourth and last was the "Old Head" bust; the reverse was unchanged. The double-florin with the Jubilee bust reverted to the cruciform arrangement of the shield, but included the sceptres as we see them on the florin of to-day; it was issued from 1887 to 1890. The half-crowns were three in number, the first was similar to the crown and was issued from 1839 to 1887, when it was replaced by the Jubilee bust with a reverse very similar to the second of George III. The third showed the "Old Head" bust and on the reverse a spade-shaped shield. The florins were four in number. The first showed the "Gothic" bust and was smaller than any that followed. It is famous for the omission of "D.G.," and is known to collectors as the "Godless" florin. In 1851 it was replaced by a larger coin with Old English lettering instead of Roman. The third was the Jubilee type and was similar to the double-florin. The fourth showed a new design on the reverse with the English, Scottish and Irish shields separated. There were four shillings: the "Young Head" with "One Shilling" on the

reverse; the Jubilee bust with a shield reverse similar to that on Jubilee half-crown. It should be noted that from 1889 the bust was enlarged and remained unchanged until 1892, when the "Old Head" was issued with a reverse similar to that of the fourth florin. The sixpences were four in number: the "Young Head" from 1838 to 1887, when the Jubilee bust was issued with a shield reverse. This coin was easily gilt and passed as a half-sovereign, so it was called in and, later in the same year, a sixpence was issued with "Six Pence" on the reverse. Groats were again issued from 1838 to 1856. The threepenny pieces follow the busts of the other coins.

The coins of Edward VII showed one important change; the reverse of the florin showed an upright figure of Britannia. The crown reverse showed St. George and the dragon, and the half-crown reverse was similar to the earlier half-crown of George V. On the reverse of the shillings the lion of George IV was reintroduced, while the sixpences had "Six Pence" on the reverse. The threepenny piece remained unchanged.

If you begin to collect, remember that every coin before 1816 is no longer legal tender, so its value is artificial and depends upon the condition of the coin and its rarity; it may be worth far less than its face value, it may be worth far more. Condition is almost everything, so never clean a coin; you may be taking a third of its value away. Don't buy poor specimens; they are the most expensive because you will want to replace them with better ones. A poor specimen is justified when the coin is very rare; for instance, a George I sixpence (Roses and Plumes) is catalogued at 15*s.*; I picked up the only one I have seen at face value! Even in its poor state it would have cost much more than that at a regular dealer's shop. Anne shillings (EF condition) vary from £2 15*s.* 0*d.* to 4*s.*, according to date, but there is no need for alarm; prices in the saleroom are very reasonable.

There is a great fascination about old coins in good condition; as contemporary portraits they are excellent, and there is a considerable heraldic interest in the reverses.

Begin by asking your local bank to let you have the last four or five crown pieces; they will cost you face value and, if you want to stop there, you can pay them back into the bank, but you will find that you will want to go on!

A Case of Herpes Zoster involving the Sole of the Foot, and Complicated by Post-Herpetic Neuralgia

By L. V. O. Brown, Esq., M.R.C.S., L.R.C.P.

ON April 30th, 1936, a man aged fifty-eight came to me complaining of pain in the left buttock and calf accompanied by difficulty in walking. The pain had been of sudden onset, was sharp and darting in character, and was made worse by movement. It had started while the patient had been sitting still, and he had found nothing to relieve it. A complete examination showed no physical signs except pain on deep pressure over the sciatic nerve and in the popliteal fossa.

A tentative diagnosis of sciatica was made, and the patient put to bed, but neither complete rest, nor cold nor hot applications afforded any appreciable relief from the pain.

Five days later an eruption appeared over the left lumbo-sacral region and on the sole of the left foot over the bases of the medial two metatarsal bones. The eruption was vesicular in nature and was seen to follow the distribution of the upper sacral roots.

The lesions over the lumbo-sacral area were somewhat ill-defined but those on the sole of the foot were more than suggestive of herpes zoster. The lesions were kept dry with zinc oxide and talc powder to prevent infection, and the usual analgesics, aspirin, phenacetin, etc., were tried, without, however, successfully relieving the pain. Nepenthe in full doses, coupled with allonal during the day, were found to be the only effective anodynes. But even these were not effectual for long.

At the end of a fortnight his foot began to swell, and this was more noticeable at night, when the pain was extreme. A bluish discoloration of the skin, more marked on the medial side of the foot, indicated that some trophic disturbances had taken place; it was evident that the circulation had been impaired.

For this reason it was thought advisable that the patient should be kept under constant observation, and he was therefore transferred, on the 15th of June, to the Putney Hospital, where he remained under supervision for three weeks. At the end of this time his foot had begun to show a slight but definite improvement, and in view of the fact that the patient appeared to be developing an acute anxiety state about his

continued absence from work, it was considered advisable to send him home, where it was possible for him to come indirectly into contact with his business. He was at this time much depressed and intolerant of the delay in his recovery.

On seeing him at his home early in July, I found that the swelling had considerably decreased, the lesions on his left lumbo-sacral region had disappeared, and the vesicles on the sole of his foot had been replaced by a number of dark bluish brown macules. He was still in some pain but this was more easily controlled than hitherto; relief was afforded by a cold compress, and he was able to sleep adequately on a simple mixture of chloral hydrate and tincture of gelsemium.

By July 18th he was able to take moderate exercise without discomfort, but he was still troubled with some swelling which necessitated rest with the foot in a raised position. A week later he was almost free from pain, which had been placed by tingling and paraesthesiæ along the course of the medial plantar nerve. He was by this time improved not only physically but mentally, and was conscious of the progress he was making. X-Rays had shown no abnormality; the Wassermann was negative, and the cerebro-spinal fluid normal.

I hope that this case may be of interest to your readers; it is so far as I know very rare to find such a distribution of the lesions in this condition. It might be interesting to hear if any of your readers has experienced a similar case, and it is perhaps of added interest in view of the recent controversy as to the merits of early operation in cases of post-herpetic neuralgia.

Reviews

Manual of Practical Obstetrics. By O'DONEL BROWNE, M.B., B.Ch., F.R.C.P., M.C.O.G. Published by Messrs. John Wright, Bristol. *Price* 20*s.*

THE author admits in his preface that he finds it impossible to produce a book such as this without expressing views differing from those held by others. Whether this is an intentional warning, or a retreat from criticism is not clear, but there are certainly several statements with which many will disagree and which some may regard as heresy.

For example, it has become increasingly obvious from statistics compiled during recent years, that the infant reared upon the breast faces life with an enormous advantage over one artificially fed, despite the succulent children displayed on the proprietary posters. Much has been said and more written in attempts to convince mothers of this wisdom, but in this volume—intended as it is to be a practical guide—the matter receives no emphasis. It is left for the mother to choose which she likes best, and the matter dismissed with a vague reference to the proverb of the horse and the water.

The chapter on ante-natal care also calls for comment, and it is doubtful whether the tangled description of the toxæmias and nephritis would be helpful either in practice or examination.

However, in spite of these criticisms and a text that is often obscure, the book contains much that is helpful in the way of practical advice, and is obviously the outcome of a very wide experience.

The chapter on anæsthetics is both thorough and up to date, whilst the section on radiology in obstetrics deals with a subject that has long been neglected in the text-books.

For the most part, the illustrations are clear, and the fact that they are all viewed from the same side avoids unnecessary confusion, but, as usual, one cannot but feel mildly envious of the length of finger supplied to obstetricians.

Much of the book is obviously written for the benefit of general practitioners, to whom it should prove extremely useful, but to those preparing for examinations it has little to recommend it.

That it is thorough there is no doubt. From the minute description of venepuncture to the detailed criteria for the application of forceps little is omitted, whilst the list of requirements for a confinement in practice would read well in any military regulations, though it is difficult to imagine anything smaller than a pantechnicon being used to convey them.

In short, a useful book of reference, though hardly a readable work.

Hints to Probationer Nurses in Mental Hospitals. By RICHARD EAGER, M.D. Published by Messrs. H. K. Lewis. Pp. 222. *Price* 8*s.* 6*d.*

OUR first reaction to this book was that we wouldn't care to be a probationer nurse in a mental hospital. There are some sound hints to start with, such as that you should count your patients when you are walking them out or going to entertainments, when you should take every opportunity, such as going through gates and doors, of making sure that your numbers are right; that epileptics should not be allowed to stand on ladders; that potential suicides should not be allowed out of sight, and that safety razors should be used. There is then a rather dull section on psychology with a few split infinitives,

and a succinct chapter on dreams in seven pages, which is well done. The rest of the book deals with various mental disorders, and the high light is the illustration of the patient in the first stage of general paralysis of the insane. There is a good chapter on the admission and discharge of patients, and at the end a list of books that may be read with advantage.

This book did not inspire us to follow in Florence Nightingale's footsteps at Colney Hatch, but at eight shillings and sixpence those of you girls who are going in for this sort of thing can hardly afford to miss it, for it has much information in a short space, and it is not surprising that it has reached three editions.

Legal Problems in Medical Practice. By D. HARCOURT KITCHIN. Published by Messrs. Edward Arnold & Co. Pp. 231. *Price* 10*s.* 6*d.*

THIS is not a book for the forensic medicine examination. It is written in simple language both for doctors and lawyers, and the author, as he says in his preface, has " tried to indicate to doctors something of the way in which the lawyer looks at their problems." The book is divided into eight sections of varying lengths. The question of the duties of the doctor is taken first, and this is divided into two sections, one of personal negligence : and the other of vicarious negligence, in which the various aspects of liability for negligence are discussed when hospitals, nursing homes and assistants are involved.

There are then sections on libel and slander, dichotomy, which is clearly—almost tersely—dealt with in two pages, and the duties of the medical witness. Here there is much sound advice, which might be read with benefit by the trembling house officer attending his first Court case. The problem of ownership of an X-ray film is then considered, and the conclusion reached seems a reasonable one, namely, that it is customary that the practitioner should keep the film, and, in view of this custom, unless an agreement to transfer the ownership to the patient has been expressly made, it shall remain the property of the practitioner. The final sections deal with testamentary capacity and business relations between doctors.

The value of the book is partly academic and partly practical. The cases cited make good reading, and it is of interest to read the real matter of those famous suits to which we have seen somewhat cryptic references in books on forensic medicine, such as Hillyer *v.* St. Bartholomew's Hospital and Kitson *v.* Playfair. Apart from this there is a practical value in the chapters on business relations, testamentary capacity of patients, and medical evidence. Though we do not feel qualified to pronounce on the validity of the author's views in law, we can say that the book is clearly written, that, by those of an inquiring and speculative turn of mind, it will be found to be entertaining, and that it is pervaded by what we feel to be the foundation of the law, that is, by good sense.

Disease in Childhood—The First Year ; A Clinical Study. By ROBERT S. FREW, M.D., F.R.C.P., Physician to the Hospital for Sick Children, Great Ormond Street. Published by Messrs. Macmillan & Co., Ltd., London, 1936. Pp. 669. *Price* 30*s.*

IN this book Dr. Frew correlates his experience of seeing out-patients at Great Ormond Street in age order and divides it into three age periods covering the first year of life. Unfortunately the interest and utility of the information to be obtained by this excellent approach is nullified by the absence of any correlation with the experience of others and the assumption that the cases seen at out-patients are necessarily representative. Furthermore the views are extremely unorthodox and unscientific. The author attributes the majority of diseases, including such diverse conditions as asthma, icterus gravis, spasmus nutans, cretinism, cœliac disease and even genius, to " hyperphlebæmia," which, one gathers, is in the nature of a rush of blood to the child during the process of being born. The style is pompous and at times ridiculous ; thus, " birth is life's most perilous adventure " and " there is nothing haphazard in development . . . the embryo must precede the fœtus, the fœtus the child, hearing is developed before speech, the permanent teeth never erupt before the milk teeth, and so on."

This book, which is handsomely produced, can be of no value to the general physician or student, but pædiatricians, whose views are on a firm enough basis to be unshaken by its unorthodoxy, misled by its personal slant, or worried by its omissions, will, no doubt, by winnowing find many grains of truth among the chaff. C. G. B.

Taylor's Practice of Medicine. Edited by E.P. POULTON, D.M., F.R.C.P. Published by Messrs. J. & A. Churchill Ltd. Pp. 1136. *Price* 28*s.* Fifteenth edition.

EVERYONE knows Taylor's Practice of Medicine, and those who do not ought to. There is now a fifteenth edition, which is better than ever before. This is one of the best reference books obtainable, and, except for the Tropical Medicine, is an all-Guy's production. The general medicine, as everyone knows, is by Dr. Poulton, the neurology by Dr.

Symonds. The psychological medicine is by Dr. Gillespie, and Dr. Barber is responsible for the section on diseases of the skin. Mr. Mollison contributes on diseases of the ear, nose and throat, and there is a section on tropical medicine by Dr. Hamilton Fairlie.

This last is the chief change in the new edition, for the section has been almost entirely re-written. Another great change is that the information on oto-rhino-laryngology has been collected together in one section.

The general medicine forms rather more than half of the book, and is very fully dealt with and up to date. Occasionally there appear pieces of information which, we felt, might have been sacrificed in favour of more practical details; for example, in the section on pernicious anæmia, we are told that there is in this condition an increased H ion concentration in the corpuscles, so that the potential difference between the cells and plasma is 28 millevolts instead of eight or nine; but we are given none of the names of the proprietary liver extracts, except that the name "pernæmon" occurs in an illustration. In the section dealing with gastric ulcer we are told that "a positive Wassermann reaction will suggest that a gastric ulcer is syphilitic," but there is no mention, whatever its merits, of the histidine treatment. To cavil at a few points, however, is easy, and the general medicine considered as a whole is admirably presented. Dr. Symonds' neurological section is excellent, and Dr. Gillespie's fifty-odd pages on psychological medicine are a model of concise lucidity. Dr. Barber has increased the length of the dermatological section by some twenty pages; this is elaborately done and very beautifully illustrated. Last comes an excellent and very full section on tropical diseases. Mr. Mollison's twenty valuable pages on the medical aspect of diseases of the ear, nose and throat, appear in among the general medicine.

The book is well printed and produced; the illustrations are absolutely first class. Its most remarkable feature is that it is priced at only twenty-eight shillings. It is difficult to understand how the book can be produced at such a figure, for at half as much again it would still be good value, and a first-rate book of reference.

Hospital Information, etc.

Notices

ASTLEY COOPER STUDENTSHIP

This Studentship, tenable at Guy's Hospital Medical School, will become vacant on October 1st, 1936.

The Student, who is called the "Astley Cooper Assistant to the Curator of the Gordon Museum," will be elected for a period of three years.

Particulars regarding the Studentship can be obtained from the Secretary to the Astley Cooper Trustees, Medical School Office, Guy's Hospital, S.E.1 to whom applications for the post should be addressed on or before August 29th, 1936.

Applications are invited for the post of Junior Resident Medical Officer to Nuffield House from September 1st, 1936, to January 1st, 1937.

The salary is at the rate of £150 per annum in addition to free board and residence.

Applications should be sent to the Superintendent, Guy's Hospital, S.E.1, from whom details of the appointment may be obtained.

Papers by Guy's Men

C. H. C. Toussaint and Another. Sources of infection in primary tuberculosis of childhood. *Brit. Jour. Tuberculosis*, 1936, xxx,125.

L. J. Witts. Effect of toxic substances of the blood-forming organs. *Brit. Med. Jour.*, 1936, ii, 211.

W. H. Ogilvie. Prognosis of inguinal hernia. *Lancet*, 1936, ii, 272.

Changes of Address

R. S. Pook, L.D.S., R.C.S. (Eng.), Oak Cottage, Wych Hill Lane, Woking, Surrey. *Woking* 1082.

Appointment

John Simons, Assistant Surgeon to the Ear, Nose and Throat Department, Kent and Sussex Hospital, Tunbridge Wells.

Birth

SMITH.—On July 31st, 1936, at "Sannox," Selhurst Road, S. Norwood, to Marjorie (née Lloyd), wife of Dr. W. Montgomery Smith—a daughter.

EDS. { M.A.P. / A.G.W.H.

GUY'S HOSPITAL GAZETTE

A Journal of Medicine, Surgery, Dentistry and Hospital News.

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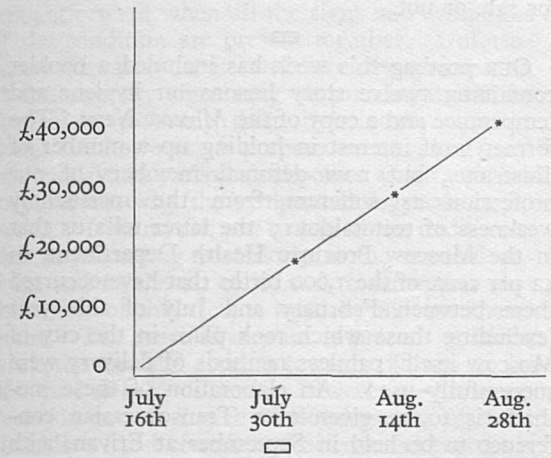
PASSIM

THE Appeal has by now raised the sum of forty thousand pounds.



THE reconstruction of the hitherto separate Queen and Victoria Wards to form a single maternity ward has been proceeding. The considerable heaps of building material that have lately appeared on the pavement outside the Medical Block are apparently not, as a member of the Staff supposed, the bricks dropped from Clinical, but have been imported on account of the structural alterations.

The new ward will contain fifty beds, and will increase the maternity accommodation by more than twice as much. This is an object for which there has been much agitation for some years past, but we have heard a rumour that for its full fruition we are really indebted to the Central Midwives' Board. This body has apparently lately legislated to the effect that it will not recognise teaching schools of less than fifty beds, and we shall in future be in line with this requirement, though as to whether the introduction of this rule was really responsible for the acceleration in rebuilding, the authorities have not enlightened us.

In the new ward there is to be a special isolation section which is to relieve the congestion caused in Patience by the septic cases. This section is to be in the south-east corner of the old Queen Ward, that is, in the corner adjoining the first floor landing of the Medical Block and looking out on to Maze Pond.

In the meantime we gather that among the newly-born their "little eyes" (as the mothers say) are liable to show some signs of conjunctivitis owing to the flying brick-dust, and it has been suggested that the whole ward might have been closed during the alterations and the patients transferred to Bright, which, owing to the opening of Nuffield House, has now lain unused for six months.

The objection to this scheme is not easy to see. The theatre in Bright could well have been used as a labour room, and the patients spared the persistent hammering which must be no less trying to the expectant or recently delivered mother than to anybody else. However, we thank Heaven (and the Central Midwives' Board) that the necessary expansion of the maternity accommodation is duly taking place.

IT has been decided that when the next batch of Surgical Ward clerks starts its appointment in October, we shall see once again four Surgical Registrars teaching in the wards. Mere words cannot express our joy that this should come to pass, for so often have we tried to draw attention to the inadequacy of the present system and so often have we pleaded in vain.

Under the present system, two Registrars are appointed to operate, whilst the other two are responsible for teaching in the wards, in contrast to the old (and we hope the new), whereby all four

teach in the morning and do a week of " take in." This seems to us, quite clearly, the system of preference, from the point of view both of Registrar, who will have a more decent interval to recover from " take in," and of ward clerk, who will have greater opportunities for clinical study and more individual teaching than is ever possible on the present multitudinous rounds.

Gone for ever, we hope, is the depressing spectacle of students two deep around the bed, hearing little and seeing nothing.

IT is with great regret that we record the retirement of Miss H. S. Angove, better known, perhaps, as Sister Massage, whose untiring energy and invigorating personality has done so much towards maintaining the efficiency of the Massage Department. However, it is not for her work alone that she will be remembered, for even those of us who have had no connection with her department had learned to regard her as something of an institution, and will not easily forget her sharp words of command echoing through the Park, in an attempt to distract her frolicsome hound from some of his more disreputable feline associates.

Her interests were wide, and once, upon a summer evening, we observed her sitting on the steps of Shepherd's House spinning a loom—the result of these labours we were never shown, but it is with sadness that we reflect that it is a sight we shall never see again.

However, we are delighted to announce that Miss Angove intends to carry on her work, and in September will start a treatment centre for the re-education of convalescent patients, especially those suffering from diseases of the lungs and heart, at 54, Cumberland Mansions, Upper George Street, Bryanston Square, S.W.1.

WE have been, somewhat garbled it is true, in the *Evening News*. The *Evening Standard* has already written about the " Ship and Shovel "; last week the *Evening News* wrote about the "Spit." This was no matter connected with the Appeal, but dealt only with the welfare of the students. That great nightly rejoiced with us that the " Spit " was redecorated, and further mentioned another Medical School improvement, the re-seating of the Anatomy Theatre. Students of anatomy, they said, have voted these O.K. Well, we've heard Mr. Thompson's views on them, but that wasn't the expression he used. Not but what they are good seats. With regard to the " Spit," a correspondent has again written to us from South Africa with a view to buying some of the old photographs of teams of 1890. These have been transported to Honor Oak Park, where they are to adorn the walls. The Committee has not yet decided whether, in accordance with our correspondent's suggestion, the photographs are for sale or not.

OUR postbag this week has included a booklet containing twelve story lessons on hygiene and temperance and a copy of the *Moscow News*. The former is of interest in holding up a number of illustrious, but now defunct, members of our profession as sufferers from the melancholy weakness of teetotaldom; the latter tells us that in the Moscow Province Health Department, in 42 per cent. of the 7,000 births that have occurred there between February and July of this year (excluding those which took place in the city of Moscow itself) painless methods of delivery were successfully used. An elaboration of these methods is to be given at a Transcaucasian conference to be held in September at Erivan, with particular reference to a " not distasteful drink, Liqueur K," which apparently secures painless delivery, and can be administered with safety by midwives in remote settlements where they are without the help of obstetricians.

Obituary

VICTOR ALEXANDER JAYNES, M.R.C.S. Eng.

(Reprinted from the " Lancet ")

DR. VICTOR ALEXANDER JAYNES, a very senior member of the medical profession, died on July 22nd, a victim to a motor accident. He received his medical education at Guy's Hospital and obtained his medical qualification sixty years ago, but until 1925 was in active practice in the Bermondsey district, where he had held throughout his professional career many public appointments, such as public vaccinator, medical officer to the Metropolitan Police, and a certifying factory surgeon. The regard in which he was held by his colleagues was shown by his election as president of the Metropolitan Police Surgeons' Association and as honorary secretary and later treasurer of the Association of Public Vaccinators, while he was also a member of the council of the Medical Defence Union. For the last 28 years of his life Dr. Jaynes lived at Bromley, and up to the day of his fatal accident was an active man.

The Diagnosis and Treatment of Acute and Sub-Acute Mastoiditis

Based on a Clinical Lecture delivered at Guy's Hospital by R. J. Cann, Esq., M.S.

GENTLEMEN,—I have decided to discuss with you some details of the diagnosis of mastoiditis, owing to a complaint made to me by a recent house surgeon in our department. He was nearing the end of his six months' appointment, and to his dismay was finding it increasingly difficult to decide which patient suffering from otitis media needed an operation for mastoiditis. Undoubtedly he had progressed to this stage of uncertainty, and I congratulated him on his good fortune in seeing such a variety of cases of otitis media and its complications.

The diagnosis of acute mastoiditis is simple and straightforward when all the signs and symptoms of the condition are present together. Unfortunately this rarely occurs, and since any combination of the ordinary signs may be present, it will be convenient to study them individually. Before doing so, however, I propose to mention some anatomical and pathological points which together may explain why the symptomatology can be so varied. I would ask you to regard the middle-ear cleft as extending posteriorly to the mastoid antrum and to the air cells, and to remember that the whole of this cleft is lined by mucous membrane. The mastoid antrum is present at birth, while the air cells develop towards the end of the first year of life. There is, however, a very great variation in the degree of development of these air cells. Most commonly the mastoid process is completely cellular. At the other extreme it may be entirely non-cellular, while more commonly there may be a few scattered cells underlying a dense cortex. This variation in structure provides one of the chief reasons for the striking differences in signs and symptoms, while the possible extension of the development of cells into remote corners of the temporal bone provides a ready means of extension of disease beyond the limits of the mastoid process.

The first stage of infection of the middle-ear cleft and its extensions is a spreading inflammation of mucous membrane with an exudation of blood-stained serum and later pus. This occurs in a closed space, and tension quickly develops, resulting in bulging of the tympanic membrane and pain in the ear. If there are air cells close to the surface of the mastoid cortex then tenderness may be found while this state of tension lasts, but, together with the earache, should disappear when the pressure is relieved by the setting up of drainage through the tympanic membrane. At any moment during an infection of the middle-ear cleft the inflammation may proceed from the mucous membrane to the bony walls of the cavities it is lining, and there begins an acute osteitis. Unfortunately we cannot detect the precise moment that this occurs. It may occur in all regions at once, or it may be localised to one cell and proceed insidiously. The type of organism causing the infection, the general and local immunity of the patient, and the presence of intercurrent illness will influence the degree and progress of the osteitis.

The typical signs and symptoms of acute mastoiditis may be found best in a child who has a cold followed by acute otitis media with earache, a rise of temperature and deafness. The tympanic membrane is incised or bursts spontaneously, a purulent discharge develops, and the pain is relieved. During the next day or so the temperature falls. A few days later there is a return of pain, the temperature rises, and there may be an accompanying diminution in discharge, which is seen to be pulsating in the perforation. Tenderness is found over the surface of the mastoid process, especially over the suprameatal triangle and at the tip. The deepest part of the bony meatus, when cleaned out, may show some swelling of its postero-superior wall. If an operation is not carried out at this stage, then the inflammatory process will extend and redness of the skin behind the ear will be seen, followed by thickening of the deep tissues of the same region, œdema of the area causing displacement of the auricle forwards and slightly downwards, and lastly, a fluctuant subperiosteal abscess. During this time the temperature will be moderately raised, and the patient will show some signs of toxic absorption such as a dirty tongue, a loss of appetite and a polymorphonuclear leucocytosis. Also deafness persists.

The only differential diagnosis to be considered is that of an otitis externa, with or without a furuncle, and its associated inflamed lymphatic glands. In this condition the pain is probably worse than with an acute mastoiditis; there is certainly much more pain in manipulating the ear, the tenderness over the mastoid process will be more localised to the tip and any swelling will seem more superficial. Unless the meatus is quite occluded by swelling or discharge, the hearing will be good, no pulsation will be noted

in the discharge, nor will the discharge quickly reaccumulate. There is not usually much difficulty in distinguishing between these two conditions, the real difficulty arises when an otitis media is known to exist in addition to a furuncle.

We may be faced, however, with a patient presenting none of the above signs and symptoms of a mastoiditis, except the evidence of an existing or a recent otitis media; or, on the other hand, any one or any combination of signs may be added. It will help, therefore, to consider the signs and symptoms separately.

Pain may be earache, which arises in the middle ear, not in the mastoid. It is usually in short, sharp stabs, and represents the adequacy of drainage of the pus from the middle ear cavity. There may be present also a dull heavy aching, or a deep boring pain. This represents periostitis. Lastly, a localised headache suggests intracranial extension of disease with irritation at least of the dura mater.

Quite distinct from pain, there may be present a throbbing or thumping in the ear, synchronous with the pulse rate. It is another sign of retention of discharge, and it may require special questioning to elicit its presence.

Tenderness may be found generally over the mastoid process, but it has a special significance in certain positions. When present at the tip only it is of little importance, and is more characteristic of an underlying inflammation of a lymph gland than of mastoid infection. Tenderness over the suprameatal triangle is of much greater significance as evidence of mastoiditis. As mentioned earlier, it may be present during the initial stage of the tension of acute otitis media, disappearing when drainage is established. But any return of this tenderness must be regarded as evidence of mastoiditis. A third point to examine for tenderness is along the posterior margin of the mastoid process, where it is very common for air cells to be found close to the surface of the bone. Any infection in these cells, leading to tenderness, is an indication for operation. In eliciting tenderness, care must be exercised not to push upon the meatus from behind, and, in the case of children, the best way is to put the tip of an index finger on each mastoid process at the same time and to push against the child's head first to one side and then the other, noticing which finger is allowed to exert most pressure. In adults, the evidence of tenderness is best seen by the sudden transient change in facial expression, which is seen only on the side which is being stimulated.

Swelling is only seen in the later cases. It occurs commonly as a general swelling of the skin over the whole mastoid process, with a filling up of the groove between pinna and scalp. It may extend above the ear and forwards into the temporal region, causing the auricle to be displaced forwards and downwards. In rare cases it may occur solely above and in front of the auricle, due to infection in well developed zygomatic air cells. Still more rarely the swelling may appear in the neck deep to the sterno-mastoid muscle, owing to the tracking of infection from the mastoid tip into the digastric groove and so along a muscle plane into the neck. This particular variety of the disease is known as Bezold's mastoiditis. Lastly, swelling may occur in a small localised part of the anterior wall of the mastoid process, where it is closely related to the mastoid antrum. This position is the postero-superior wall of the deep external auditory meatus. It is not an easy sign to observe, but when it is possible to be certain of its existence, then mastoiditis may be diagnosed with equal certainty. Swelling and tenderness clearly depend for their existence on the inflammation reaching the surface, and the possibility of this taking place must vary with the type of mastoid structure. It is thus possible to have a dangerous degree of osteitis surrounding the mastoid antrum, with commencing spread intracranially, yet with no extension through a dense layer of cortical bone, and therefore no swelling and even no tenderness.

Temperature may be a misleading sign. In a simple uncomplicated case of acute mastoiditis the temperature rarely rises higher than 100-101°. A temperature higher than this suggests invasion of the blood stream by toxins, if not by organisms, and is an indication that the lateral sinus must be carefully exposed and inspected during the operation. A rigor is certain evidence of blood-stream infection, and is an indication for urgent operation. A continued temperature two days after a myringotomy or any rise of temperature after an initial fall is strong evidence that mastoiditis exists. But so much for positive conclusions from a rise of temperature. The danger lies in assuming that a normal temperature means an absence of any serious disease. This is far from true, and in the presence of other evidence of mastoiditis you must completely ignore the fact that the temperature is normal.

The pulse rate usually varies with the temperature. An increasing pulse rate over and above this suggests a general toxæmia which is getting the upper hand, while a slowing of the pulse rate is often the first evidence of an intracranial lesion.

I am afraid there is no hard-and-fast set of rules for you by which you may arrive at a diagnosis of mastoiditis. It is necessary to make a summary of whichever of the above symptoms and

signs are present, to consider the general condition of the patient, and then to attempt the answer to the following two questions.

a. Is the mastoid infected beyond recovery?

b. Must an operation be carried out immediately?

You must remember that in treatment of an acute mastoiditis we have two objects in view: firstly to save life, and secondly to save hearing. These principles govern the decision as to when you must operate and also as to the extent of your operation. I am often asked whether I am going to perform a "radical mastoid" on a patient suffering from acute mastoiditos. Of course, we do not, for a radical mastoid implies removal of the contents of the middle ear, in addition to the removal of disease in the mastoid process. Yet our operation on the mastoid cell system for acute disease must be "radical" in our dealing with all infected cells, tracing each group to its limit. The successful restoration of hearing depends on the adequate drainage of the middle ear posteriorly by the free opening up of the auditus. The wound is left widely open in order to promote drainage of toxic products from the infected bone and to lessen the chances of any intracranial extension. The after-care of the wound is that of any granulating surface, but I would emphasise two points: firstly, that the skin of the meatus must be kept clean, and secondly that the skin surrounding the wound should be protected by ointment from the irritation of the discharge-soaked dressings.

If a patient suffering from otitis media develops no signs of acute mastoiditis, enjoys the correct treatment of the otitis media, but in spite of this persists with a discharging ear beyond a period of three to four weeks, you may be quite certain that there is some infection in the mastoid which is maintaining the ear discharge and which will in time cause sufficient damage to the middle ear to prevent the proper restoration of hearing. To this condition of continued otorrhœa following on an acute otitis media I would give the name subacute mastoiditis, in order to draw your attention to the necessity for proper treatment, namely, a mastoid operation. If we could only put into effect this teaching, chronic otitis media and the dangerous intracranial complications associated with it would almost disappear, while a large proportion of the deafness existing in the population would be prevented.

Psychosynthesis

A Paper read at the Opening Meeting of the Psychological Section of Guy's Hospital Physical Society by F. L. D. Young, Esq.

MR. CHAIRMAN and GENTLEMEN,—Psychosynthesis is the building up of the mind. It is brought about by the association of the various mental impressions, and by the co-operation of the various instinctive desires under a common idea. It is a process which is absolutely essential for the production of a normally balanced mind.

There are two stages in the process: (1) the socialisation of the instincts and (2) the co-operation of the socialised instincts under a common idea.

In order to see how the synthesis takes place we must consider the development of the mind, starting from the cradle days.

The newly-born child reacts purely instinctively or reflexively, until he discovers that he cannot always have his own way. He is annoyed, for example, to find that he cannot climb over the side of his cot to explore the outer world, and that objects do not come to him merely because he wants to grasp them. On the other hand he finds that other desires meet with no physical resistance, and that the gratification of some of them gives him pleasure, such as the desire to micturate, while the gratification of others gives him pain, such as the desire to put his finger in the fire. At this early age behaviour is only regulated by the pain or pleasure caused by the frustration or gratification of the instinctive desires.

As the child grows older a new and far more powerful factor begins to influence his behaviour, namely, the behaviour of other human beings. From the outset, human beings strongly attract his interest and attention, because they move, and emit sounds, and because they bring him relief from hunger and supply his wants. He is, therefore, all the more impressed when he finds that these human beings punish him for doing certain things, and reward him for doing others. Moreover, the expressions on their faces—their smiles and frowns—produce, as purely instinctive reactions, similar expressions on his, and these expressions are accompanied by corresponding emotions in him. In this way he learns to understand, in terms of his own experience, the expressions of others, and to attribute to them the emotions he himself feels.

As his mind develops, the child interprets with increasing accuracy the attitude of others towards himself. He learns which of his actions please and which displease his fellow beings, and, because of his inborn gregarious tendencies, he prefers their approval to their disapproval. As McDougall says, "the praise and blame of our fellows, especially as expressed by the voice of public opinion, are the principal and most effective sanctions of moral conduct for the great mass of men." The child gradually realises as he grows older that in order to secure social approval he must not, for example, express his ego instinct in its native form of personal aggressiveness and self-display, but that he must act in an outwardly unselfish manner. Hence arises the need of adapting the expression of his instincts to his social surroundings—in other words, of socialising his instincts—and in the course of doing so sentiments are acquired.

A sentiment may be defined as an organised system of emotional tendencies centred about some object or idea, through which the native instincts are expressed in a socialised form.

Take, for example, the love of justice, one of the most universal and earliest acquired of the sentiments. The person who curbs his self-assertiveness in order to avoid the disapproval of others naturally expects others to do the same, and his self-assertiveness finds expression in the assertion of the idea of justice, because it imposes the same restraint on others that he imposes on himself. When the idea of justice is firmly fixed in his mind it operates in the reciprocal sense of imposing the same restraint on himself as others impose on themselves. In the same way, the sex instinct finds socialised expression in the sentiment of sex love, which clothes the object of it with respect, and so restrains lust.

We now come to the second stage in the process of psychosynthesis, namely, the co-operation of the socialised instincts under a common idea. I have endeavoured to show how the first stage, namely, the socialisation of the instincts, is reached by the association of the impressions made on the mind by the social environment, with the consequent formation of sentiments through which the native instincts are expressed in a socialised form.

It might be asked at this point whether the first stage is not enough by itself—whether the second stage is really necessary to ensure the desired result of a normally balanced and happy mind. The answer to this is that the first stage is not enough, and that it is absolutely essential to organise the various sentiments in one harmonious whole. The mind is still subject to the influence of social environments, and if the sentiments were not organised, first one sentiment and then another would dominate the mind in response to social influences, and the man with such a mind would be a mere reflection of his immediate surroundings, being drawn or impelled this way or that, and preoccupied with the necessity of re-adjusting his mind to every change of externals. He would suffer from feelings of anxiety before going to a social function, and would arrive in a state of embarrassment due to the conflict between his instincts of self-display and submission. Such a conflict is usual in a child in the presence of strangers. Further, a man of the type we are considering is subject to fits of introspection, as a result of which he forces himself to express the qualities in which he concludes he is lacking, and this in turn is followed by corresponding inhibitions. Obviously such a man cannot be said to have a balanced and happy mind. Indeed it would be true to say of him—to use a familiar expression—that he has no mind of his own.

What is wanted to balance the mind is some motive or master sentiment by which the other sentiments will be organised and harmonised, and which will furnish a determining factor for conduct in every possible situation.

Not any sentiment will serve this purpose of a master sentiment. Take the case of a man whose master sentiment is the love of money. He will subordinate all other sentiments to it. Generosity, kindness, consideration for others, fairness, tolerance, frankness, friendship and every other sentiment—including even self-respect itself—which is either in direct opposition to the sentiment of love of money or is likely to interfere with its gratification, will be inhibited; and the instincts which found expression through them will be expressed in other forms which *are* reconcilable with the love of money. He will become a man of one idea, and all the social influences which are contrary to that idea will be feared or resented by him. He may avoid society in order to escape these influences, but he cannot withdraw from it altogether. He must meet and mix with some at least of his fellow-men. He must suffer mental conflicts from which there is no escape. He will not be master of his mind, but his mind will be master of him.

Moreover, as the love of money depends for its gratification on the acquisition of money, and as this in turn is dependent on the external environment being favourable to it, the miser makes himself a slave to a master sentiment which may at any time suffer a shock from something outside his own control. Circumstances may arise in which he loses the money he has hoarded, or in which the opportunities of acquiring money are

curtailed or removed. In such circumstances he would be the victim of violent mental disturbances.

The same remarks would apply in the case where sex-love is the master sentiment. Sex-love is built up on the strong instinct of sex, and therefore can very completely take charge of the mind. The man whose master sentiment is sex-love would be incapable of any sustained intellectual activity, because the sex-instinct is so highly extravagant of nervous energy. In this case the mind would become the man's master in a special degree. And as the objects around which his master sentiment is formed are other human beings, his mind would become the slave of their varying moods and personalities.

It might be thought that the love of learning would answer the requirements of the master sentiment which we are seeking. I suggest, however, that love of learning as a master sentiment would not be less ruthless than love of money in inhibiting other sentiments. And, like the love of money, the love of learning would be liable to suffer a shock from something outside a man's own control. He might, for instance, be visited with the misfortune of blindness, or poverty might deprive him of the opportunity of gratifying his love of learning.

From a consideration of these and other hypothetical cases we shall find that the master sentiment which is needed must satisfy all the following conditions—not some, but all of them :—

1. It must be capable of organising the other sentiments in harmonious co-operation.

2. It must be capable of inhibiting the anti-social desires.

3. It must not be centred around some object in the external environment.

4. It must make the man the master of his mind, and not the mind the master of the man.

We shall find that all these conditions are satisfied by the sentiment which may best be described as the sentiment of self-respect, and that no other sentiment satisfies all of them. Our master sentiment then must be self-respect.

We must have a clear understanding of what we mean by self-respect. Perhaps the best way of arriving at such an understanding is to compare self-respect with the apparently similar, but in reality very different, sentiment of self-esteem. Both the sentiments of self-respect and self-esteem are formed by the organisation of the instincts of self-display and submission around the idea of self. But in the case of self-respect, the self is associated with an ideal of conduct of which it constantly strives not to fall short, but which it never in fact succeeds in attaining ; while in the case of self-esteem, the self is associated with a standard of conduct which it has already attained, and a standard, moreover, which the self conceives to be generally approved by public opinion. The self-respecting man serves an ideal of conduct for its *own* sake, and not to win the approval of others. The man with self-esteem is well satisfied to think that he *has* won the approval of others. It is true that his self-esteem suffers a shock when, as must sometimes happen, he is made aware of the disapproval of another person, but in such an event the mental mechanism of rationalisation comes to his assistance, and he will find a reason for the other's disapproval, perhaps, by attributing it to envy or jealousy. The man with self-esteem is also apt to resort to the mental mechanism of projection, and to ascribe to others the primitive desires which are unconsciously repressed in himself in the conscious effort to maintain his standard of conduct in order to retain the approval of his fellows. The self-respecting man, on the other hand, has no occasion to resort to this morbid device, as his ideal of conduct serves as an avenue through which the repressed desires are sublimated. For the purpose of clearness, I should perhaps say that sublimation is defined as the expression of repressed desires along lines which are related to their original needs, but on a higher level, satisfying the desires, but also socially useful.

With the master sentiment of self-respect in control, all sentiments which are wholly irreconcilable with the ideal of conduct will be inhibited, and the instinctive energies which are withdrawn from them will be utilised in other sentiments which are reconcilable with the ideal. Sadism, for example, which is formed by the fusion of the instincts of self-display and sex, will be inhibited, and the former instinct given expression in self-respect and the latter in sex-love. Each of the sentiments which are not inhibited will be allotted its right place in accordance with its capacity to contribute to the attainment of the ideal, and will be fostered, checked or controlled to harmonise with the others in the common service of the ideal.

The ideal is not of the nature of a rigid set of laws. It is rather a conception which is constantly changing as fresh experiences are registered. Its clearness may vary in intensity from day to day, but it remains sufficiently constant and luminous to serve the purpose of a synthetic motive.

In conclusion, I should like to quote some words of Mr. H. G. Wells which are very pertinent to the subject of this paper :—

" Nearly all of us want something to hold us together . . . some steadying thing that will

afford an escape from fluctuations. . . . To me it seems that the need is synthetic, that some synthetic idea and belief is needed to harmonise one's life, to give a law by which motive may be tried against motive, and an effectual peace of mind achieved. . . . And after peace comes the beginning of right conduct. . . . You will want to behave well, you will do your utmost to behave well, and to understand what *is* behaving well. . . . And you will not feel bitterly because you seem unsuccessful beside others, or because you are misunderstood or unjustly treated; you will not bear malice nor cherish anger nor seek revenge, you will never turn towards suicide as a relief from intolerable things, indeed there will be *no* intolerable things. You will have peace within you."

These words of Mr. H. G. Wells, I think, could hardly be bettered as a statement of the case for including psychosynthesis as a factor in the treatment of patients suffering from mental disorder.

A Case of Herpes Zoster of the Face and Mouth, Pulmonary Abscess, and Recovery in a Man of 83

By N. J. Boulton, Esq., M.R.C.S., L.R.C.P.

ON March 11th, 1935, I was asked to see a healthy old farmer of 83, who was complaining of a sore mouth.

On examination there were vesicles over the anterior half of the right side of the tongue, the right cheek and lower lip and the right lower jaw, which was edentulous. On the face there were a few vesicles over the parotid area and around the mental foramen.

The pain was very severe and eating was quite impossible.

In spite of frequent mouth washes and swabbing with eusol, the mouth became foully septic and remained so for nearly two months.

On the tenth day of the illness right facial paralysis developed; vesicles appeared on the lower part of the ear and in the auditory meatus, and he became deaf. Two nights later the ear began to discharge and pus could be seen coming through a perforation in the drumhead, although the drumhead had not appeared inflamed on the previous day, nor had he complained of pain in that ear. The ear continued to discharge for about three weeks, but the deafness still persists.

At the end of the third week he complained of pain in the chest over the right nipple.

His temperature was 101.8 and he looked very ill.

On auscultation a few rhonchi and crepitations could be heard around the right nipple. There was no dullness.

On the next day these signs had disappeared, the temperature was 99, and he felt better.

However, he ran a temperature up to 100 for a week, and then began to cough up purulent sputum. The sputum gradually increased in quantity and became so foul that one could smell it on entering the house. The crepitations had now returned to the right nipple area and the right base was dull. A diagnosis of pulmonary abscess was made and postural drainage advised.

The abscess drained for three months, became fouler every day, and hope was given up. However, he gradually pulled round and the expectoration ceased, but near the end he developed an acute cholecystitis (an old complaint of his which could not be attributed to the shingles). This subsided and he at last began to recover.

He is now deaf and suffers greatly from neuralgia of the face and tongue. The tongue has deep pitted scars, but the face is quite clear. There is a very slight residual facial paralysis, most noticeable at the mouth, from which the saliva dribbles.

Looking back on this case I imagine he had herpes of the third division of his fifth nerve and of the geniculate ganglion, with a pulmonary abscess due to aspiration of the foul material in his mouth.

Herpes zoster seems particularly prevalent in this district, and in the last twelve cases here seven have communicated chicken pox to their children on the fourteenth to the sixteenth day.

Actually this is a 100 per cent. infectivity, as the other five did not come into contact with children.

Any comments on the anatomy of the lesions and treatment of the persistent neuralgia would be welcomed.

Correspondence

The Smoking-Room Photographs

To the Editor of the GAZETTE

SIR,—About seven months ago I wrote to you and asked if I might buy the photographs from the smoking-room in which I happened to appear.

It seemed to me incredible they should have been there so long. Ten years is a long time to maintain an interest in a football team; after thirty years they might have an archæological rather than an athletic interest.

My letter was not for publication so much as an effort to facilitate their removal in a tactful manner.

I was well below the average as a performer in any of the teams, going in rather for quantity than quality. However, this fact led me to entertain an affection and respect for the other members who so stoutly carried us along.

I had visualised that I would say to you as I took our dying glories down from the wall, "Morituri te salutamus," and that you would say aside to your friends as I reached the door, "De mortuis nil nisi bonum." (I was hoping you would say this to prevent further reference to railway waiting-rooms.)

Then, as I tried to press five shillings into your hand, I was hoping you would say, referring to the photographs, "Dare quam accipere." To which I should have retorted (having by this time exhausted my Latin), "Honi soit qui mal y pense."*

In imagining a conversation one always visualises oneself as having the last word; however, I cannot get out of my mind the vision of my wife taking the dusty frames gently from me and saying, "Facilis descensus Averno."

May one ask, however, are the photographs in a museum, or has some medical student used them as a means to relieve his natural irritation?

Yours, etc.,

M. C. WETHERELL.

Kirkland House,
Whitehall.

(**We feel that the answer was: "Bis dat qui cito dat." But "Jam veniet tacito curva senecta pede . . ." and now that those who, in their day, maintained the traditions, and since have looked down on us from the walls of the Spit with a frown on our morals, are removed from their places, the question arises: "Quis custodiet ipsos custodes?" *See* "Passim.")

United Hospitals' Veterans' Rifle Club

To the Editor of the GAZETTE

SIR,—At recent meetings of the Guy's Hospital and United Hospitals' Rifle Clubs suggestions have been put forward concerning the formation of a United Hospitals' Veterans' Rifle Club.

It is felt that there must be many past members of Hospital Rifle Clubs who would welcome the opportunity not only to keep in touch with hospital shooting and with each other, but to keep up rifle shooting after ceasing to be eligible to shoot for their hospital team.

If any past member of the Rifle Club interested in this scheme will communicate with me I shall be only too pleased to supply further details. Also, any suggestions as to the formation and general working of the proposed club will be gratefully received and laid before the committee of the United Hospitals' Rifle Club at its next meeting.

Yours, etc.,

G. E. BARNARD.

Guy's Hospital,
S.E.1.

Lumbago

To the Editor of the GAZETTE

SIR,—On reading Dr. Douthwaite's clinical lecture on lumbago in your last issue, I called to mind a similar lecture by the late Sir Alfred Fripp, given about 1910. Speaking of the treatment of lumbago he said: "In all acute cases get the patient's urine alkaline at the earliest possible moment and you will earn the gratitude of your patients." I have never forgotten his advice, and have carried it out regularly ever since, and I believe in a large number of cases it is of great value.

Yours, etc.,

F. J. LLOYD.

1, Sinclair Road,
Kensington, W.14.

The Editor will, at all times be glad to consider articles or sketches, provided that they are accompanied by the writer's name and address, not necessarily for publication. Authors who desire reprints of their papers should make their own arrangements with the Printers when they return their proofs. All contributions to be addressed to *The Editor*, who does not accept responsibility for the views expressed by contributors.

Reviews

Common Skin Diseases. (General Practice Series.) By A. C. ROXBURGH, M.A., M.D. Third Edition. Pp. xxxii+378, with 8 Colour Plates and 139 Illustrations. *Price* 15*s.*

THE fact that the third edition of this book was needed only sixteen months after the second indicates its popularity and usefulness. Within such a short time one expects few additions; nevertheless some of the former illustrations have been improved and eleven new ones added and the text amplified to include such conditions of recent importance as gold dermatitis.

There is only one criticism one can make of this excellent book, and that is the occasional divorce of the skin lesions from general medicine; thus such a condition as hypertrichosis is inadequately dealt with. This is, however, a small fault in a book which for clearness both in text and illustrations, and the method of approach to an otherwise confusing subject, has not been equalled.

C. G. B.

Handbook for the Locum Tenens. By T. C. SCOTT WEBB, M.R.C.S., L.R.C.P. Published by Oxford University Press. *Price* 3*s.* 6*d.*

AT one time or another, most of us venture out into practice as a *locum tenens* and realise then, perhaps for the first time, the manifold activities of a general practitioner. No longer can one investigate a patient by writing a few lines on a bed letter; special investigations are expensive and often difficult to arrange; books have to be kept and fees taken. Whilst more complicated than ever are the intricacies of the Panel.

More often than not, through illness or emergency, the owner of the practice has little time to explain the workings of his practice, and it is in an attempt to solve some of the commoner difficulties that this book is written.

The author apparently has had a wide experience of "locums" (we trust not through illness), and has succeeded in condensing into a very few pages much invaluable information.

The sections dealing with insurance practice and explaining the uses of the various public officials are admirably done, but the advantage of having a set system of book-keeping rather than adopting that already in use in the practice, seems doubtful to us.

The second half of the book reminds us of that part of a diary designed to contain one's size in collars, being a series of headings, such as hospitals in the district, fees to be charged, etc., with space left for the answers to be inserted. However, the whole book is eminently sensible in its advice, and might be read with advantage by those who regard *locum tenens* work as something of a rest cure.

A Short History of Tuberculosis. By G. NORMAN MEACHEN, M.D., M.R.C.P. Published by Messrs. John Bale, Sons & Danielsson. Pp. 105. *Price* 3*s.* 6*d.*

IN this short history of tuberculosis the author attempts to condense into ninety-odd pages the history of a disease which was known to exist before 2000 B.C.—a most difficult task, and one in which he is but partially successful.

He gives us facts in plenty, from aphorisms of Hippocrates to the discovery of sanocrysin, from Laennec's primitive stethoscope to the development of the bronchoscope; almost every page in the history of the disease is mentioned, together with a list of the pioneer workers in each particular branch. The quantity of these names to receive honourable mention demonstrates quite clearly what an enormous amount of work has been expended on this problem, though, from the extraordinary variety of methods used, it would seem that at times it has not been without thought of profit.

However, though the text is extremely dull, and at times no more than a string of names, the dates placed after these names add interest, though it is, perhaps, surprising to note that Christian Saugman lived to the ripe old age of 109, and apparently introduced his manometer for use in the induction of pneumothorax at the age of eighty-six.

In all we feel that the story of tuberculosis is too long for so short a précis.

Research on the Low Potencies of Homœopathy. By W. E. BOYD, M.D. Published by Messrs. Heinemann. Pp. 38. *Price* 2*s.* 6*d.*

THERE was a good deal about this book that we could not grasp. It is laid down in or near the beginning that the homœopathic action of a drug is different from the physiological

action, and it is stated that the homœopathic action is the action of the drug in accordance with the homœopathic principle. But when we are only told that the homœopathic principle is the old tag about *similia similibus curentur*, it is difficult to see just why the homœopathic and physiological actions are necessarily so different. Nor are we told, so one supposes that this is a booklet meant for homœopaths who, on the principle of *similia similibus*, understand these things by divine intuition. Other pieces of information that the book contains are that mercaptan can be detected by the olfactory nerves (animal not stated) in an attenuation of 1×10^{-8}, and that " very definite effects " have been demonstrated on tar carcinoma in mice using an attenuation of 10^{-11} to 10^{-15} molares of silver solution.

There are illustrations of the spectogram of 7x met. tincture, of the spectogram of low potency lycopodium tincture, some oscillograph records, and so forth. We do not like to disappoint the publishers, who have been so good as to send us, at intervals, two copies of this work, but quite honestly we don't know what it is about. The only thing we can gather is that there has been work done with the object of showing that the presence of substances in homœopathic doses can be demonstrated by physical methods, so let us, dear readers, leave it at that. Those of you who are homœopaths may be able to pick up a gem or two; if so, we would like you to hand us on your explanations. But we don't offer a prize.

The Silver Fleece—An Autobiography. By ROBERT COLLIS. Published by Messrs. Thomas Nelson & Sons, Ltd. Pp. 290. *Price* 15*s*.

THIS book has attracted considerable attention. Dr. Collis is a little old-fashioned for these days in that he waits to write his autobiography until he is nearly forty, but, as far as being in vogue is concerned, this disadvantage is offset by the fact that he is a medical man. Books by doctors have lately enjoyed a peculiar popularity. Dr. Munthe's *Story of San Michele* is in every household; almost everybody has read Dr. Halliday Sutherland's *The Arches of the Years*, and Dr. Cronin's *Hatter's Castle* and *The Stars Look Down* are to be found in every circulating library in the kingdom.

The doctor is accustomed to be a certain amount behind the scenes, to see some of what goes on behind the façade of the ordinary person's life. On account of this and such other special knowledge as is his, nor shared by the public at large, there is perhaps a tendency to regard him, if ever so little, as something of a mystic, almost as though he were able to write down for all to read the secret of life at seven and six a time.

So perhaps the importance of these books by doctors has come to be exaggerated a little. *Hatter's Castle*, for all the furore it created, is killed by comparison with the strikingly similar *House with the Green Shutters*, which Douglas had written some twenty years before, and of *The Stars Look Down* we felt that the best part was the title. While Dr. Sutherland had something to say, Dr. Munthe had more. Indeed, the *Story of San Michele* has a wayward charm that irresistibly captivates the reader; it is exceedingly well written, and crammed with incident, but for all that it is subtlely edited. Who would have guessed from the book that Dr. Munthe was a married man with children? But for all that he has left out half of his life, and that we feel we cannot always believe him; Dr. Munthe impresses us as a great personality, with a touch of the charlatan perhaps, but a man of power and control, with great reserves. Beside the *Story of San Michele* the *Silver Fleece* seems almost gauche. It is an ordinary tale, ordinarily told; it is a book by an ordinary person, somewhat nearer the category of Mr. Beverley Nichols.

So we feel that Messrs. Nelson should not have said in their publisher's notice, " Here is a book of magnificent personality . . . he has adventured in many worlds—athletic, philosophical, medical, at Rugby, at Cambridge, in London, across the Atlantic . . ." for this is an inartistic error, in that it leads the reader, even allowing for a publisher's exuberance, to expect too much.

It is true that Dr. Collis emerges from these pages, in so far as we know him (and the book is not written with such power as to enable us to know him well), as a likeable figure, one with whom one would readily have a drink, but we cannot feel that the book is one of magnificent personality. And as for the adventures in many worlds, these mean that he was an international rugby footballer and a sometime Buchmanite; that, like many others, he went to an English public school and University; was a medical student in London, and has been to America.

Dr. Collis's greatest advantage is, perhaps, that he is an Irishman. And so he writes with a certain persuasiveness that is sometimes charming in spite of the fact that we have " commence " instead of " begin," " request " instead of " ask," and even " we bethought ourselves " instead of " we thought." But we also have passages of a sentimentality which we could have done without.

There are many interesting things in the book; one of them is Dr. Collis's plain statement that he was offered money to become a student at King's College Hospital on the strength of a blue for rugby football; another is the account of the troubles in Dublin in 1916.

The chapter on Buchman is very well done, though the author should have known better than to call this cult the Oxford Group Movement. This body, led, we understand, by an American Jew and started at Cambridge, should be discouraged from adopting a name (to which it is not in the least entitled) in order that it may have an intellectual and social cachet which otherwise it would be quite without.

Perhaps the best thing in the book is the description of Dr. Still at Great Ormond Street, which is vivid and a true picture. The author's impressions of this most famous pædiatrician do not quite correspond with our own: "his manner was always the same—courteous, yet implacably reserved." The first time we met Dr. Still we did not find him in the least reserved. He gossiped gaily and was humorous, but then we had the advantage over Dr. Collis of then being aged but four and a half. Indeed, the only time on which we found him reserved was the last on which we met him—but then he had given us, we since learned, an unfavourable prognosis.

There are other good things: a charming story of Sir Martin Conway, another of a bacteriologist's sermon at a Presbyterian Orphanage, meetings with A. E. and Sir J. J. Thompson. The book is interesting enough for those who, like us, have a penchant for such things, but if it is, as the publishers claim, one of the finest autobiographies of our day, that is only a reflection on our day; it is not so much a book to be bought, as to be borrowed from the library.

The Treatment of Asthma. By F. T. HARRINGTON, M.R.C.S., L.R.C.P. Published by Messrs. H. K. Lewis. Pp. 109. *Price* 6*s.*

IT is perhaps fitting that this book should be reviewed here, for the author apparently is a faithful disciple of Sir William Arbuthnot Lane, whom he quotes in his introduction, and whose doctrine of intestinal toxæmia he is never tired of repeating.

Without toxæmia, he claims that asthma cannot exist, and he regards the actual bronchial spasm as being just one of a series of reactions, consequent upon some severe and prolonged toxæmia. All the usual sites of focal sepsis are mentioned, but it is obvious that the author has no doubts as to the real culprit, and more evidence is produced to incriminate the bowel. Here in this Hospital we have been taught to place some reliance on skin tests, as a means of finding some specific antigen, or group of antigens, to which the patient is sensitive and to which he may subsequently be desensitised. But Dr. Harrington is not impressed with this idea, and regards the presence of positive skin reactions as merely further evidence of a toxic state; Dr. Oriel's discovery of a specific proteose in the urine suffers a similar fate, and we return once more to the bowels. In spite of the author's monotonous and somewhat unduly one-sided views, there is much in the book that is of use. There are good chapters on breathing exercises and balneo-therapy, some remarkable case histories, and some sensible passages on the suitable regulation of the patient's life.

Of the diets we liked Friday's breakfast the best. Consisting of crisp bacon (Ayrshire or Wiltshire), wholemeal bread, butter and honey, this seemed a passable meal, far preferable to Saturday's, which is composed of whipped oranges and milk, or Wednesday's, when there are only stewed figs and prunes. We feel that there would be difficulty in persuading the patients to conform to Dr. Harrington's somewhat stringent regime.

On account of its cheapness and the fact that it contains much that is ordinarily lost sight of in practice, this book may be recommended to the general practitioner.

Hospital Information, etc.

Changes of Address

Robert G. Hunt, L.D.S.Eng., D.D.S., 6 Park Crescent, Torquay.

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Marriage

POTTS—SCANTLEBURY.—On August 1st at St. Mary-at-Finchley, London, A. G. Potts, M.B., B.S., to Phyllis Mary Scantlebury, of Northway Court, Golders Green.

EDS. { M.A.P. A.G.W.H.

GUY'S HOSPITAL GAZETTE

A Journal of Medicine, Surgery, Dentistry and Hospital News.

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PASSIM

THE statisticians predicted a fall in the receipts of the Appeal Fund during the month of September. They were right. The Appeal is now bringing in money at the rate of only about thirty pounds a day. The total sum that has been collected up to date is forty-two thousand pounds, and that is to say that only two thousand pounds has accrued during the last fortnight. This is an enormous decrease in the rate that has hitherto been maintained, but we are assured that it is only to be expected at a time when the world is away, and it is comforting to know that we may expect the graph to rise again in a steeper curve.

SINCE the death of Mr. R. P. Rowlands the Visiting staff has had no representative on the Council of the Royal College of Surgeons, and it is therefore with great pleasure that we learn that Mr. Mr. Ogilvie has been an Assistant Surgeon to the lately been elected a member of this Council. Mr. Ogilvie has been as Assistant Surgeon to the Hospital since 1925, and during these eleven years has earned a reputation as a craftsman of the very highest class, more especially in connection with his work upon the stomach, for which, perhaps, he is best known.

Mr. Rowlands will not readily be forgotten, but in this work we feel that he could have no more worthy successor.

A MEMBER of an older generation remarked to us the other day that, in idly perusing these columns, he had been puzzled by the "Spit" controversy, for in his day the word "Spit" had been an abbreviation of "spital," in its turn an abbreviation of "hospital," as, he alleged, in Spitalfields. He speculated as to the process by which this generic term had been whittled down in its application until it was used to designate, not the Hospital as a whole, but that small fragment, the semi-basement cafeteria of the College.

That was a new view to us; we had taken no such broad view as to read into the word something of the evolution of language; we had looked upon it as a quip, a witticism, almost as a triumph of onomatopœia. So when we say that the Spit, having been redecorated, has emerged from its dust-sheets and is in use again, we are not mentioning any great reform that has taken place in the Hospital at large as the result of the Appeal—we speak merely of the Smoking Room. The former gloom has, to some extent, been dissipated. The old dun colouring (and is not the very name calculated to depress?) has been replaced by a light green and cream, which, with the light green floor, reflects much cheerful light. The furniture is new; there are tables of stability and elegance, and red leather chairs. The curtains and the new electric fittings are yet to come, and there are to be pictures. Ha, we, like the warhorse, scent controversy. The selection committee which was responsible for the choice of pictures for the reading room has reached a compromise between the rarefied atmosphere of high thinking that there prevails and the more inspissated air of plain living that obtains in the Spit; we are to have in the latter "Le Bon Bock" and the "Bar at the Folies Bergères." And when the plans for extension of the Spit materialise, as soon they may, we may well have a room which we can enter without a shudder.

IT is now very nearly a year since Dr. J. A. Ryle left us to take up his work as Regius Professor of Physic at Cambridge University, and during this year we have noted several important developments in the University Medical School.

Not the least among these is the foundation of the Elmore Research Studentships, which are tenable for two years at Addenbrooke's Hospital,

and we were delighted to see that Mr. B. McArdle, M.B., B.S., M.R.C.P., has been elected to one of the four Studentships. For a graduate of London to be elected to a post at Cambridge is an event infrequent enough to be worthy of note, and we extend to Mr. McArdle our warmest congratulations.

UNDER the title of " Grains and Scruples " the *Lancet* has been publishing the " unfettered thoughts of doctors in various occupations." Those for July were written by a West Country practitioner, who recounts certain wonderful recoveries and homely anecdotes interspersed in a short essay in comparative obstetrics. The grains and scruples for August are written by a London surgeon, and are concerned with the psychology underlying modern surgery. In prose of great excellence, which might be the envy of any professional writer, the author discusses certain aspects of the British character, the reflections of these on the relation between the profession and the public, and the comparative atmospheres in which surgery is conducted in Britain and on the Continent. He holds British surgery in very high opinion, though his description of those who " will often confide in moments of expansion that they ' like to do a spot of surgery occasionally ' as they would say that they ' like to play a spot of golf,' " leads the author to one of the happiest aphorisms that we have seen for some time, that " Operating as a sport is a purely British conception, and its home is the cottage hospital."

Although the articles are published anonymously, we shall not be surprised should the half-yearly index, in which the authors are to be revealed, disclose the August contribution as the work of a Guy's man.

Two of the articles on Prognosis for August have also been written by Guy's men. Mr. Ogilvie has continued his article of July on Inguinal Hernia and Dr. Douthwaite follows with one on Lumbago and Sciatica, repeating the views which he has recently outlined in our columns. It is pleasing to see these evidences of Hospital activity.

WE were, in our turn, " rather disquieted " when a friend confronted us with the following passage from the official organ of the Cyclists' Touring Club : " The frequency with which doctors are charged with motoring offences, particularly drunkenness, is rather disquieting. What is the explanation ? "

What, indeed ! Surely Evipan, of which we have heard so much, can help us ? Perhaps the heads of the Royal Colleges might join with the *Daily Mail*, the Cyclists' Touring Club and ourselves in conducting experiments in painless extraction of the truth from members of the profession, with, perhaps, beer-tasters (if they can be got under) and barristers as controls.

THERE are in London and its environs certain spots, drab in themselves, which have been lent by their associations a little colour of which they would otherwise have been devoid. Such are Hurst Park, the more prosaic Marshall Street, where the baths are, and Bromley-by-Bow. So it is with regret that we have noted the disappearance from the Underground of Gillespie Road, where we used to alight on occasions when going to watch the Arsenal. But we are glad to have seen the other day a street in the far South-East which has been called Arbuthnot Lane.

The Surgical Treatment of Pulmonary Tuberculosis

A Clinical Lecture delivered at Guy's Hospital by Geoffrey Marshall, Esq., M.D., F.R.C.P.

GENTLEMEN,—The text-books that I read as a student divided diseases due to tuberculous infection into two main groups : Tuberculosis of the Lungs and of the Meninges on the one hand, and " Surgical Tuberculosis " on the other. The former group was the undisputed domain of the physician, whereas surgical tuberculosis, consisting chiefly of disease of the bones and lymph glands, was allotted to the care of the surgeon, who treated its effects by widespread and repeated excisions.

Practice has changed so much since then that it has been suggested that the old order should be reversed. Rollier and others have shown that in so-called " surgical tuberculosis " the best results are obtained by prolonged rest in the open air, with exposure of the whole body to sun and air, and that operations are in most cases unnecessary.

On the other hand, Forlanini, Jacobeus, Sauerbruch and others have introduced operative methods for dealing with tuberculosis of the lungs,

which have helped to arrest disease and prolong the lives of thousands; indeed, they have materially altered the outlook in this disease.

The common principle of these methods is known as "collapse therapy," but perhaps the alternative title, "relaxation therapy," recently put forward by Dr. Gravesen, of Vejlefjord, is more accurate.

Before considering further the application of this treatment, let us recall the pathological changes produced in the lungs by tuberculous inflammation. In the common form of the disease as seen in adolescents and adults there will at first be one or more areas of consolidation. In favourable cases the consolidated areas become invaded by fibrous tissue, and if the patient be subjected to prolonged immobilisation and suitable constitutional treatment, firm scarring may bring about a complete arrest of the disease. Unfortunately, in a large proportion of cases consolidation of lung tissue is followed by caseation, or, in other words, by destruction of lung substance. The caseous material will be discharged through a bronchus, leaving a cavity in the lung. If the cavity be small, it may in due course collapse and heal in the fibrous reaction which is taking place in the surrounding tissue. If the diamater of the cavity be greater than two centimetres, it is unlikely to heal without the help of some form of collapse therapy. These larger cavities usually persist, giving rise to periodical hæmoptysis, and to sputum which contains tubercle bacilli.

Recent improvements in the technique of taking X-ray photographs have taught us that pulmonary cavities are present in the vast majority of the cases of tuberculous disease of the lungs in which there is recurrent expectoration of material containing tubercle bacilli. The discovery of cavities in the lungs, and the control of their treatment is dependent on efficient radiography. Clinical examination of the chest is necessary for a proper assessment of every case of pulmonary disease, but good X-ray photographs and their proper interpretation will reveal cavities in many cases which present no characteristic physical signs. A relatively small proportion of patients with persistent tuberculous cavities live for long periods, but sanatorium statistics show that 80 per cent. fail to survive five years. The minority, who live on, expel tubercle bacilli in their sputum and spread the disease amongst those with whom they live and work, causing untold loss and misery.

ARTIFICIAL PNEUMOTHORAX

When a tuberculous cavity is discovered an attempt should be made to induce an effective pneumothorax, unless both lungs are too extensively diseased, or some other vital contraindication be present. The pneumothorax must be selective in order to bring about healing of the disease, that is to say it must cause complete retraction of the affected lobe or lobes of the lung. In a very large proportion of cases, complete retraction of the affected lobes is prevented by the presence of adhesions. If the excavated portions of the lung be firmly attached to the chest wall over a wide area, the pneumothorax should not be maintained. If, on the other hand, the attachments are circumscribed, and in course of time lengthen into narrow bands, a perfect result may be attainable with the aid of a surgeon.

DIVISION OF ADHESIONS

When a cavity is held open by banklike adhesions, a surgeon should be called in to introduce a thoracoscope. With this instrument thrust through the chest wall, he will examine the adhesions, and if he finds the appearances favourable, he will divide the adhesions at their attachments to the chest wall by means of a cautery. We are only beginning to realise the widespread application for this operation; there is no doubt that adhesions in an artificial pneumothorax should be divided when X-ray shows that they are preventing the closure of a pulmonary cavity; I would go further, and say that adhesions over the site of a cavity should be divided even in cases where the cavity is apparently closing satisfactorily despite the presence of the adhesions. For experience shows that cavities do not heal satisfactorily when there are adhesions near them. Imperfect healing paves the way to relapse, and in many such cases I have seen a bronchogenic spread of the disease to the other lung after two or three years of apparently successful treatment by artificial pneumothorax.

PHRENIC EVULSION

There is a wide divergence of opinion concerning the value and uses of phrenic evulsion. In conjunction with an artificial pneumothorax it is sometimes beneficial in relaxing vertical tension exercised by inoperable adhesions attached to the diaphragm. An incidental advantage of paralysing the disphragm is that this slows the rate at which gases are absorbed from the pleural cavity, so that the interval between refills may be lengthened considerably.

Phrenic evulsion as an independent method of relaxation in the treatment of cavities has fallen from the favour it enjoyed two or three years ago. Dr. Gravesen "debunked" this method by publishing a review of his cases in 1934 (*Sinding-*

Larsen, Acta Tuberc. Scandin., Oct., 1934). Successful results were few, and these were nearly all in cases where the disease was situated in a lower lobe. Alexander and Nihill published a review of 179 cases (*Jnl. Thor. Surg.*, 1933, ii, 549), claiming a much higher proportion of successes, and their last results were in cases of cavitation of the upper lobes, 40 per cent. of which were said to have closed. Personally, I can recall no case of cavitation of the lower lobes in which healing occurred as a result of phrenicectomy unaided by other surgical measures, but I have seen two cases in which apical cavities closed.

APICOLYSIS WITH WAX PLUMBAGE

This is a most attractive operation for the closure of cavities near the apex of the lung. A portion of the second rib is excised posteriorly, and the surgeon separates the external layer of pleura from the chest wall and pushes the top of the lung downwards. The space between the parietal pleura and the top of the thoracic cage is then filled with paraffin wax. The immediate result of this relatively minor operation is often good, X-ray showing a beautiful selective collapse with closure of the cavity in the upper lobe. The late results are, unfortunately, far from happy in most cases. Sooner or later, suppuration is apt to occur round the wax packing, with fistula formation and secondary infection. In my own cases the operation has proved uniformly disastrous.

THORACOPLASTY

What are we to do in cases of tuberculous cavitation, where all attempts to induce an effective pneumothorax are prevented by indivisible adhesions? The one efficient method is extrapleural thoracoplasty. The operation is severe, entailing resection of large portions of from six to ten ribs. The results, however, are admirable when the method is used with discretion. We do not apply it in every case in which artificial pneumothorax is found to be impracticable, for a pneumothorax can, and should, be induced even though the tuberculous disease is still active and spreading. Thoracoplasty, on the other hand, must be deferred until the disease has been got under control, or it will only hasten the patient's end. Active disease must be met by medical methods dealing with the patient as a whole. If and when resistance has been raised sufficiently to hold the infection in check, then the surgeon's aid may be invoked to shorten the ribs, allow the chest wall to fall in, and help Nature to close the cavities.

Surgical operations do not cure tuberculosis, but they may help Nature to repair structural damage, which without surgical intervention would be irreparable.

A Case of Glandular Fever

By Gavin Thurston, Esq., M.R.C.S.

THE comparative rarity of glandular fever, and the importance of its recognition in general practice, prompts me to record the following case.

Mr. M., aged 44, a watchmaker, came to me complaining of malaise for three weeks, swellings in the neck and rash.

Family history.—There was nothing relevant in the family history.

Previous illnesses.—About two years ago the patient complained of "fullness in the chest," and was found to have a systolic pressure of 200 mm. Careful investigation showed no cause for the abnormality, which has been regarded as essential hypertension. He also had had occasional rheumatic pains.

Present condition.—On July 3rd, 1936, he felt unwell and feverish. Temperature 103. Apart from redness of the throat there were no physical signs and he resumed work in a few days.

July 10th, 1936. He had severe pains in the legs, which he put down to "rheumatism." There was no rise in temperature, and he stayed at home for three days.

July 17th, 1936. In the evening he went to bed feeling ill and looking puffy about the face.

July 18th, 1936. Temperature 102, pulse 90. A profuse macular rash on trunk, face and arms had developed. The throat was red, but not sore. No glands were felt. No other abnormality.

July 20th, 1936. Temperature 102, pulse 86. The rash was confluent and suggestive of rubella. There were no petechiæ, and the patient felt quite well. A chain of glands was felt down the posterior border of the left sterno-mastoid. These were not tender, they were enlarged to about $\frac{3}{4}$ in. in diameter and were hard and discrete. No glands were palpated elsewhere, nor was the spleen palpable.

July 23rd, 1936. Temperature 102. Pulse 100. The rash was fading; there were enlarged glands

down the posterior borders of both sterno-mastoids, in both groins and the left axilla. The spleen was palpable on deep inspiration. White count, 8,280 per cu. mm. Polymorphs, 5,796 (70 per cent.). Lymphocytes, 2,484 (30 per cent.). No abnormal forms. A tentative diagnosis of glandular fever was made.

July 25th, 1936. Apyrexial. Considerable skin irritation. Glands as before.

July 31st, 1936. Apyrexial. The face was desquamating; the glands were as before. A troublesome cough had developed, without signs in the chest. There was complete anorexia, and sleeplessness out of proportion to the itching. White count, 12,800 per cu. mm. Polymorphs, 7,689 (60 per cent.). Lymphocytes, 4,608 (36 per cent.). Eosinophils, 512 (4 per cent.).

August 4th, 1936. He felt better, though extremely weak. The cough and appetite were better.

August 7th, 1936. Much better, appetite good. Glands were still palpable in the right groin and down the posterior borders of both sterno-mastoids. White count, 6,300 per cu. mm. Polymorphs, 2,560 (40 per cent.). Lymphocytes, 3,740 (60 per cent.). No abnormal forms.

On September 3rd, 1936, having been for a holiday he felt very well. While away he gained 9 lb. in weight, having lost 18 lb. during his illness. The sterno-mastoid and inguinal glands were barely palpable. Blood pressure, 200/120. Hæmoglobin, 93 per cent. White count, 2,640 per cu. mm. Polymorphs, 1,320 (50 per cent.). Large lymphos., 132 (5 per cent.). Small lymphos., 1,029 (39 per cent.). Eosin, 52 (2 per cent.). Monocytes, 132 (5 per cent.).

At no time did he have epistaxis or abdominal pain. The bowels and micturition were normal. There was no abnormality in the urine, and the liver never became palpable.

Glandular fever is an acute disease of variable infectivity, characterised by fever, generalised glandular enlargement and a lymphocytosis. The prognosis is good and skin eruptions are sometimes added to the picture.

The maximum incidence is in childhood, and it is said to be decidedly rare after the age of forty.[1] Cases occur sporadically and in epidemics. The infecting agent is unknown, but a lymphotropic virus is suspect.[2] An interesting feature of the disease is the large number of cases reported in those associated with the medical profession.

Clinically, three forms are described[3] :—

I. GLANDULAR TYPE

The glandular type was the form originally described by Filatow in 1885 and by Pfeiffer in 1889. There is a short prodromal period of two or three days' malaise, followed by rapid enlargement of the cervical glands. The posterior cervical group is first affected, and axillary and inguinal groups rapidly follow suit in about 80 per cent. of cases.[4] The glands are firm, discrete and insensitive; sizes larger than 1 in. in diameter are rarely attained. The spleen becomes palpable in about 50 per cent.[5] The fauces are red, but there is rarely complaint of sore throat.

General disturbance is slight, despite temperatures between 102 and 103. The pulse rate does not rise proportionately with the temperature. Well-being during the height of illness and extreme debility in convalescence is the rule.

The fever lasts for four or five days and ends by lysis, but glandular enlargement may persist for several months, without untoward effect.

The blood picture is characteristic; along with the glandular enlargement a leucocytosis up to 15,000 occurs. The lymphocytes increase to a varying degree, percentages between 30 per cent. and 90 per cent. being seen. Priest[6] states that a polymorphs count of 30 per cent. or over is an important differential point from acute leukæmia. The lymphocytosis is a variable phenomenon; it may be fleeting and only revealed by repeated blood examinations, or it may last for several weeks.[7] The lymphocytes are of the usual type, but the nuclei appear somewhat "foamy." A polymorphonuclear leucocytosis preceding the lymphocytosis sometimes causes confusion, though the absolute lymphocyte count should be considered.

As a rule, the clinical picture is sufficiently clear-cut to permit of a confident bedside diagnosis, though a blood examination must always be carried out, to exclude such conditions as leukæmia and secondary syphilis. The hæmoglobin percentage and red count are normal, and no abnormal cell forms are seen. The glandular type of glandular fever is commonest up to the age of 15.

II.—ANGINOSE TYPE

The anginose type, which includes the diseases known as monocytic angina and infective mononucleosis, is characterised by severe sore throat. The onset is slower than in the glandular form, and sore throat is the first complaint. After a few days a membrane is seen in the throat and diphtheria is simulated. Constitutional disturbance is less than in diphtheria, however, though high fever and a rapid pulse are common. In a few days the membrane separates and the symptoms are much ameliorated. Formation and disappearance of the membrane are very rapid.

The glandular enlargement is less pronounced than in the first type, though it is a constant feature. Splenic enlargement is more frequent. The course of the disease is longer than in the glandular form, but the main points are similar. Recognition is important on account of the resemblance to diphtheria, agranulocytic angina and the other diseases in which faucial membrane plays a part. The anginose type of glandular fever is commonest between 15 and 25.

III.—FEBRILE TYPE

Tidy considers this the fully developed form of the disease, but in America, where monocytic angina is common, its occurrence is questioned. There is a prodromal period of two to three weeks, and the patient takes to his bed feeling very unwell. The temperature rises to 102-103, with but little increase in pulse. There may then be a temporary remission of symptoms, or the illness may continue. A rash, usually macular, but sometimes rubelliform, then develops, and the cervical glands enlarge, either simultaneously or a day or two later. The subsequent course is similar to the other types, though even more protracted, and the rash begins to fade in four or five days. Desquamation is pronounced and the blood picture is as described above. The febrile type of glandular fever is commonest after the age of 25.

The test of Paul and Bunnell, in which high dilutions of the patient's serum agglutinate suspensions of sheep's red cells is not found in other diseases. The Wassermann and Kahn reactions become positive during the acute phases.

Complications are not recorded, and suppuration of glands seldom occurs.

Differential diagnosis has to be made from, above all, acute leukæmia, in which attention to features such as purpura and abnormal blood cells will help. Secondary syphilis, measles and streptococcal sore throat may also be imitated. The case under discussion was, at first, regarded as rubella.

Treatment is symptomatic, the glands may be counter-irritated with methyl salicylate, and liquor arsenicalis 5 m., t.d.s., given in an acceptable vehicle. Cough may be treated with a linctus, and headache with aspirin. Bed is essential until the patient has been apyrexial for a week, and a holiday should be prescribed before he returns to his ordinary life.

The above case is of interest on account of the age of the patient (glandular fever is rare after forty) and the comparatively late development of the lymphocytosis. It is otherwise a typical example of the febrile form of the disease.

Glandular fever occasionally crops up, especially in general practice, and it should be borne in mind when considering a difficult case of continued fever. Familiarity with its features will avert confusion with grave conditions, such as leukæmia, a confident bedside diagnosis can be made and a cheerful prognosis given.

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Pulpless Teeth and Their Treatment

A Paper read before the Dental Society, Guy's Hospital, by E. C. Sharp, Esq.

MR. CHAIRMAN and GENTLEMEN,—I wish to make it clear that the term "Pulpless Teeth" for the purposes of this address refers only to those teeth in which the pulp is in or has passed through a condition of gangrenous degeneration. The expression "dead teeth" has been purposely avoided, as it is quite apparent that it is incorrect in this application; a pulpless tooth is not necessarily a dead one—indeed, one which is dead is quite beyond the bounds of successful therapeutical treatment. It would not be tolerated by the tissues with which it is associated during life, but would, in the course of time, become exfoliated.

The pulpless tooth most certainly is a living organ, at least in part, through the medium of the periodontal membrane, which is responsible for the nourishment of the cementum.

The dentine, of course, does lose its vitality. It loses its sensitiveness and its powers of proliferation, and it may become more brittle, but it maintains its structure satisfactorily, so that the tooth may still fulfil the all-important function of mastication. And for this reason, unless the patient is known to be suffering from some systemic disease which may afford an indication to the contrary, it is worth while trying to save it.

"SOLICITUDE"

Diagnostically, pulpless teeth are generally not difficult to identify. In the majority of cases, discoloration due to the disintegration of red blood corpuscles and the dentinal fibrils takes place and the affected tooth becomes darker in colour than its neighbours.

On the application of thermal and electrical stimuli to the affected tooth no discomfort is experienced (except in cases where a small fragment of the pulp may still be alive, in which case some evidence of stimulation will be apparent).

In cases where the infection has passed through the apical foramen, then the condition may give rise to one of the forms of periodontitis or of alveolar abscess and diagnosis be made according to the symptoms.

The forms of periodontitis commonly arising from gangrenous conditions of the pulp are acute and chronic local periodontitis.

The symptoms of the acute form are, at first, an uneasiness in the region of the affected tooth due to hyperæmia of the vessels of the periodontal membrane. This is relieved at first by approximating the affected tooth to its antagonists in the mouth; the blood is driven out of the engorged vessels. Percussion of the affected part at this stage, however, increases the tension in the vessels, giving rise to a sensation of sharp pain. As the condition becomes more acute, pain is experienced on the application of any sort of pressure to the tooth. The tooth becomes partly extruded from its socket, giving rise to a sensation of "gagged bite"; the mouth feels as though it is being propped open. It is slightly loosened, and pain becomes persistent and difficult to bear. The gum presents a swollen appearance and is purple coloured.

In chronic periodontitis there may be slow suppuration, in which case the symptoms are similar to those of the acute form, but less intense. More rarely no sign is manifested until the ulceration of the chronic alveolar abscess which may be a complication. Apical granuloma, rarefying periodontitis, productive periodontitis (the latter being subdivided into exostosis, false germination, internal deposition of cementum, ankylosis of alveolar bone) are all forms of chronic local periodontitis which may be due to gangrene of the pulp. They may be diagnosed by taking X-ray photographs. It should here be observed that the condition of periodontitis is not necessarily a positive indication of a pulpless tooth; also that there are other causes of the condition with which we are not now concerned.

Alveolar abscess on the other hand, when it is present, is a positive indication of a dead pulp. The symptoms in the early part of the acute stage are similar to those of acute periodontitis; the tooth displays signs of tenderness and becomes extruded in a similar manner. The condition quickly gets worse with much throbbing pain and marked œdema of the gums and face, so that it becomes difficult for the patient to open his mouth, but fluctuation is usually absent, owing to the looseness of the tissues in this region. The abscess usually "points" on the outer side of the alveolus, but occasionally on the palatal side of the alveolus and even on the external surface of the face or neck. The pain abates when the periosteal tissues become perforated by the abscess.

In the chronic stage the alveolar abscess may not manifest itself (except in X-ray pictures) until a discharging sinus is formed.

Radiographically, a dead pulp may present any of the following appearances:—

1. There may be evidence of a carious cavity encroaching on the pulp cavity.
2. There may be present a condition of rarefying osteitis or of bone sclerosis around the apex of the tooth.
3. An abscess or granuloma may be present on one or more of the apices of the tooth.
4. Necrosis of the apex with destruction of bone may be seen.
5. There may be either terminal or peripheral absorption of the apices of the tooth with destruction of bone.
6. In some cases of non-carious pulpless teeth the pulp chamber and canals and possibly the apical foramina are not fully formed owing to death of the pulp before development was complete.
7. There may be a thickened periodontal membrane.

Any one or more than one of these conditions may be present in connection with a pulpless tooth.

As for the treatment of pulpless teeth, there seem to be only two really distinct schools of thought. Whereas in this country it is usual to regard the removal of the disintegrated organ as a purely mechanical one, carried out under aseptic and perhaps antiseptic conditions, the Americans take into consideration the chemistry of putrefaction and regard most of their methods from the chemical as well as the mechanical point of view. For this reason the chemical aspect of pulp degeneration is included here.

Firstly it should be stated that whereas the proteins and fats undergo putrefaction proper, the carbohydrate content is broken down by a process of fermentation. The intermediate products are peptones and allied substances, ptomaines, of which putrescin, cadaverin and neuridin are the most important, putrescin and cada-

verin possessing definite toxic properties. Together with neuridin they later form ammonia and amino acids (of which the important ones are tyrosine and leucine), and then aromatic products.

The final end products of pulp degeneration are water, carbon dioxide and acetic acid, ammonia, hydrogen sulphide and a semi-putrid mass of fats and soaps (the latter are formed by the alkaline reaction of ptomaines on fats). These, together with some intermediate products, degenerating dentinal fibrils, red blood corpuscles and bacteria constitute a typical chemical picture of the degenerating pulp.

In the treatment of gangrenous pulps, whether of the dry or moist variety, it seems to be almost universally accepted that a dressing of formaldehyde dissolved in tricresol should be sealed in the cavity for at least 24 hours before any attempt is made to remove the necrotic tissue.

This is ideal from the chemical point of view as expounded by Buckley, of Chicago, because (1) the formaldehyde gas which is slowly evolved combines with ammonia to form a solid :—

$$6CH_2O+4NH_3=(CH_2)_6N_4+6H_2O,$$

and (2) with hydrogen sulphide to form methyl alcohol and sulphur :—

$$2CH_2O+2H_2S=2CH_3OH+2S.$$

He also considers that it unites with the ptomaines to form non-toxic products.

The tricresol is useful because it dissolves formadehyde in all proportions and modifies its very irritant qualities to a great extent. It is a disinfectant, and, most important, it disposes of the fatty compounds.

According to the more conservative views advanced by Sir Norman Bennett, the formaldehyde gas evolved acts merely as a disinfectant, the tricresol as a diluting medium for it and as an aseptic solution. It seems to the impartial observer that this does not account for the disposal of the gas, so that it seems that there must be an increase of pressure within the chamber, which is surely a dangerous condition.

For the purpose of discussing the treatment of pulpless teeth (after the insertion of the preliminary dressing) it is proposed to divide them into three separate classes :—

Cases in which the pulp only is affected and where the periapical tissues are as yet unharmed.

Secondly, cases where the infection has definitely spread beyond the apical foramen causing inflammation of the periodontal membrane, and possibly the absorption of bone in the region of the apex—the formation of a " chronic abscess."

Thirdly, in which there is formed an alveolar abscess which has a sinus perforating the gingival tissues.

It should be mentioned in passing that before the insertion of the preliminary dressing any caries which is present in the cavity should be treated, the walls of the cavity should be made continuous with those of pulp chamber, and that the preliminary dressing is sealed in the pulp chamber with a watertight temporary cement for from 24 to 72 hours.

This having been done, the necrotic tissue may be removed by one of several methods. It has been already stated that in this country purely mechanical methods of removal are most frequently employed, and the commonest is that in which the operation is carried out in an aseptic medium of tricresol by means of smooth and barbed broaches and reamers.

The (American) chemico-mechanical method may be carried out by using phenolsulphonic (80 per cent.), sulphuric (30 per cent.) or hydrochloric acids, by Howe's silver nitrate method, with Schrier's sodium-potassium alloy as advocated by Rhein, or by ionisation.

Phenolsulphonic acid is generally used in preference to hydrochloric or sulphuric acids, because it is less irritant both to the periapical tissues and to the gingival tissues (if any should escape), and because it is less destructive to the enamel and dentine of the tooth. In fact, as will be mentioned later, it is an excellent cauterant for the periapical tissues. The technique is similar in each case. The acid is worked gradually to the end of the canal with appropriate broaches, being frequently neutralised with 10 per cent. sodium bicarbonate.

The resultant effervescence helps in removing débris from the canal. When this has been done the canal is reamed out and a eucalyptol dressing inserted for from four days to a week.

Howe's silver nitrate method incorporates the use of an ammoniacal solution of silver nitrate together with a solution of formaldehyde, 10 per cent., to sterilise the canal.

The whole of the crown of the tooth both inside and outside the cavity is then painted with a varnish made of rosin in alcohol. A solution of fresh potassium iodide and some absolute alcohol should be held in readiness to remove any stain that does form.

The cavity should be filled with silver nitrate solution and allowed to remain for roughly three minutes. The formaldehyde is then added and left for one minute. The liquid is then absorbed with an absorbent paper point and the process repeated two or three times after any debris has

been removed. Eugenol is then applied to the cavity and canals and desiccation is achieved with warm air, which precipitates the metallic silver. The potassium iodide may be applied to crown and cavity to remove all traces of silver nitrate and the varnish washed off with alcohol. By this means the canal and any contents remaining are said to become sterile in a very short space of time and all minute bifurcations become blocked.

Rhein's method of using the sodium-potassium alloy consists of the application of small fragments of it to the pulp by means of a barbed broach. The alloy combines with the water in the pulp canal, liberating the hydroxides of both metals, and hydrogen is evolved.

The reaction is essentially vigorous with the generation of much heat (indeed, with excess potassium sufficient heat may be evolved to ignite the hydrogen, that is a temperature of 560 to 600° C.). The hydroxides combine with the fatty end-products of degeneration to form soluble soaps, which may easily be washed out of the canal. The technique of this method is difficult, because it is extremely tedious to maintain in a state of dryness that part of the canal which has already been treated, and unless this is done all the reaction takes place in one spot. Also it is very essential to use an alloy which does not generate enough heat to damage any of the tissues.

Equally satisfactory results may be obtained by using the hydroxide of one of the metals.

Lastly, the root canal may be sterilised by ionic medication. The necrotic contents are first removed mechanically from the affected tooth. The best results are obtained by using iridio-platinum wire for the anode and an electrolyte of zinc chloride. The canal is flooded with zinc chloride and the anode inserted into it. The patient holds the cathode. Treatment is administered on a time-current basis (*e.g.*, 2 m.a. 15 mins.).

Sterilisation is effected by penetration of the tooth substance and periapical tissues by zinc ions, and by the liberation of chlorine at the anode.

The treatment of cases of the second class where infection has involved the periapical tissues, Buckley suggests the use of phenolsulphonic acid as a cauterant.

He considers that the acid is a bone cell stimulant. After thoroughly "sterilising" the root canal in the manner already described, the acid is applied to the affected area by actually forcing a broach moistened with it through the apical foramen. Any acid left in the canal is neutralised with sodium bicarbonate, the canal dessicated with 70 per cent. alcohol and a dressing of eucalyptol placed in it.

A course of ionisation treatment in most cases gives good results.

And, finally, in the case of a front single-rooted tooth, the operation of apicectomy may be performed and the affected area of bone curetted away.

The prognosis for treatment of cases of this sort is rarely very good where more than the apical third of the periodontal membrane has been involved.

The third type of pulpless tooth under consideration, you will remember, is that in which a discharging sinus has been established either in the gingival trough or, more rarely, on the palatal or lingual aspect of the gingivus.

In this sort of condition it is first necessary to remove all debris from the canal, secondly to wash out the sinus via the canal with normal saline, and then to cauterise the tissues with one of the following (care being taken not to cauterise the gum tissue): dichloramine—T, phenolsulphonic acid, tricresol or phenol (90 per cent.). The root canal should be filled with an antiseptic filling.

Root canal fillings may be divided into two classes: mechanical and chemical-mechanical. The latter type is most often used.

Examples of the purely mechanical type are copper amalgam and lead points.

Examples of mixed fillings :—

Chloropercha and gutta-percha.
Chloropercha and metal points.
Antiseptic paste such as Parfitt's powder and gutta-percha points.
Osteo and thymol.

After removal of gangrenous tissue and before filling, it is advisable to treat the canal with at least one antiseptic dressing inserted for a period of one week.

Finally, it seems that although there is such a profusion of apparently excellent methods for the proper therapeutical treatment of pulpless teeth, it is still impossible to know that one has removed the last vestiges of infection from the pulp canal or periapical tissues of any specific tooth. There is inevitably an element of doubt. Infection may be present which at times when the patient is in a condition of lowered resistance may flare up. In any case a pulpless tooth undoubtedly presents a seat of lowered resistance where infection may settle and cause serious consequences in times of physical stress.

Reviews

Bacterial Endocarditis. By C. BRUCE PERRY, M.D., M.R.C.P. Published by Messrs. John Wright & Sons, Bristol. Pp. 137. *Price* 10*s.* 6*d.*

THIS small book gives an admirable summary of the present state of our knowledge of bacterial endocarditis. Within this definition the author includes both the acute form due to the various septicæmias and the subacute form due to invasion of the susceptible endocardium by the streptococcus viridans. The discussion throughout deals with the group as a whole, though naturally, owing to its various clinical aspects, chronicity and insidious onset, the subacute type is of first interest and receives most attention. There are few conditions in medicine in which the bacteriology and morbid anatomy are so in accordance with the clinical picture as subacute bacterial endocarditis and in which recent work has given such a clear conception of its ætiology. The chapters dealing with this are excellent and well illustrated by references and plates. Nevertheless, clinically there is still much to know and diagnosis is difficult and often mistaken before the positive blood culture makes prognosis so easy; it is here that we could wish for a clearer exposition.

The book is issued by the Harmsworth Memorial Research Fund, the whole of which is to be given to the discoverer of a cure for the disease; the chapter on treatment gives little hope that this will happen in the near future. The somewhat gloomy conclusion reached, with which on the evidence we must agree, is that improvement must at present come from prophylaxis, especially in the prevention and improved treatment of acute rheumatism.

An experimental study of malignant endocarditis in the rabbit by Dr. Lloyd Jones is appended, and the conclusion reached, as so often happens, merely confirms what we already know in man.

The book is well produced, contains an extensive list of references, but no index. For a critical and unbiassed summary of the subject in a concise yet readable form it is to be recommended. C. B.

Notes on the Nervous System. By E. HOPEWELL-ASH, M.D. Published by Messrs. Faber & Faber. Pp. 103. *Price* 3*s.* 6*d.*

WE cannot understand how there comes to be a demand for this sort of book. The author states in his preface that it is intended for students of elementary anatomy and physiology and for nurses. As, a few sentences later, he says that students who require a more detailed knowledge should refer to the well-known textbooks, it might be inferred that, for the exceptional student, the author thinks that the book is adequate as a work on the nervous system. A glance is enough to enable one to realise that such an idea is somewhat euphoric; indeed, the student who finds the book of value must be reading anatomy and physiology of a very elementary kind indeed. Nor does it seem to us of any greater use to nurses. A work which deals so inadequately both with the anatomy and physiology on the one hand and with the clinical signs and symptoms on the other, can scarcely be of value to anyone.

There are some curious things in the text; after a description of the pupillary light reflex, the author remarks that "a less known reaction is the contraction of the pupil on visual accommodation." (Less known to whom?) In the section on reflexes the knee jerk, the ankle jerk, and the elbow jerk alone are mentioned. Among the even more less-known reactions seem to be the plantar responses. Lightning pains are described as a clinical sign. Disseminated sclerosis is "due to the degeneration of certain of the motor tracks in the spinal cord."

The section on miscellaneous nervous diseases consists of a statement in about three hundred words on paralysis agitans, epilepsy, neurasthenia, anxiety states and hysteria, and it can be judged from this how much is said about them, and of what use it is likely to be. We are amazed that this book, first published in 1915, should, in the course of twenty-one years, have gone to a second edition.

Materia Medica for Nurses. By A. MUIR CRAWFORD, M.D. Published by Messrs. H. K. Lewis & Co., Ltd., Third Edition. Pp. 94.

THIS is a good book of its kind. It serves a useful purpose for nurses both as a book of reference and for examination study. It is painstakingly compiled and simply written. It deals with all the drugs that are likely to be met with in the course of everyday nursing practice, and it does not pretend to do more. Its value is enhanced by the use of clear type and distinctive headlines. There is a useful and well-written chapter on the interpretation of prescriptions, which, as the author points out, is sometimes a matter of difficulty. As a sound and inexpensive book this can be heartily recommended.

Correspondence

Bureau of Human Heredity

To the Editor of the GAZETTE

SIR,—My Council would be very much obliged if you would be good enough to insert the accompanying notice.

The object of this Bureau is in the first instance to collect as complete a record as possible of current information on human genetics. The only practical method is by making our needs known widely through scientific and medical journals, and your courtesy in this matter would be greatly appreciated. As such a notice might easily be overlooked, some editors have suggested to us that repeat issues will be necessary.

Later on, when a considerable amount of material is already available, we should be glad to furnish you from time to time with notes on the more interesting and important material which may come in. I need hardly add that we are not proposing to put in insertions as paid advertisements as the existence of the Bureau is a matter of interest to all scientific and medical men concerned with Man.

Yours, etc.,

R. RUGGLES GATES,
Chairman.

115, Gower Street,
W.C.1.

BUREAU OF HUMAN HEREDITY

The object of this Bureau is collection on as wide a scale as possible of material dealing with human genetics. Later, the tasks of analysis of material and distribution of the information available will be added.

The Bureau is directed by a Council representing medical and scientific bodies in Great Britain. It is affiliated to the International Human Heredity Committee, which ensures co-operation in all areas where research is proceeding.

The Council would be grateful to receive all available material from institutions and individuals, furnishing well-authenticated data on the transmission of human traits whatever these may be. Pedigrees are particularly desired; twin studies and statistical researches are also relevant. As research workers and others who send in material may in some cases wish to retain the sole right of publication (or copyright), those who so desire are asked to accompany their material with a statement to that effect.

Material should be given with all available details in regard to source, diagnostic symptoms, and the name and address of the person or persons who vouch for accuracy. All such details will be regarded as strictly confidential.

Reprints of published work would be most acceptable. Further, many authors when publishing material may also have collected a number of pedigrees which they have been unable to reproduce in detail. It is the object of the Council that such records, by being included in the Clearing House, should not be lost.

Those wishing for a copy of the Standard International Pedigree Symbols may obtain one from the office.

Announcements in regard to the services undertaken by the Bureau will be published from time to time.

Chairman.—R. Ruggles Gates.

Executive Committee.—R. A. Fisher, J. B. S. Haldane, E. A. Cockayne, J. A. Fraser Roberts, L. E. Halsey (Hon. Treasurer), C. B. S. Hodson (Hon. General Secretary).

Proprietary Preparations

To the Editor of the GAZETTE

SIR,—Now that piles have been found, by the manufacturers of a proprietary preparation, to be due to the virulent staphylococci (the infection of which is overcome by their ointment), it is interesting to speculate how much further the advertisements in our daily papers may not carry the march of medical science. Even the lists of ailments, ranging from neuritis to physical decay, which are curable by popular remedies advertised everywhere are not less startling than this latest assertion.

It would be amusing, Sir, if you would publish every now and then such of these recent discoveries as come to your notice. We might find changes and trends of thought among the manufacturers following the same cycles as those of members of the profession.

Yours, etc.,

SEEKER AFTER KNOWLEDGE.

Sport

Cricket

THE CHANNEL ISLANDS TOUR

THE tour of the Channel Islands from the 23rd of July to the 29th proved to be a very great success in every way; all the members of the party thoroughly enjoyed themselves, most of them made plenty of new acquaintances, all of whom were most friendly and hospitable, and everybody departed with wishes from every side that the tour become an annual occurrence.

The first part of the tour was conducted in Guernsey, a two-day match being played against the Guernsey Island Cricket Club and a one-day match against the 2nd Battalion of the Sherwood Foresters, the regiment situated on the island at that time.

The match with Guernsey, although confined to a single-innings game owing to rain on the first day, proved to be a very exciting affair.

Guy's won the toss and were given quite a good start by J. A. L. Leeming and L. G. Morey, 50 being on the board before the partnership was broken, Leeming, whose first four scoring strokes went to the boundary, making 32. G. M. A. Brown and C. G. Wright, who made 44 and 31 respectively, took the score to 161 for 5, but, as the last five wickets fell for 20 runs, the Hospital innings ended at 181.

Guernsey fared rather badly on starting their innings and lost 6 wickets for 64, but a useful stand was made by G. Parke and L. T. Rivett Camac, the ninth wicket falling at 151. Guy's still had a good chance, but V. A. Lewis hit very hard and the remaining runs were obtained in spite of the fact that a catch was dropped with the score a tie.

Thus Guernsey came out victorious by the narrow margin of one wicket. R. L. Skea took five wickets for 80.

Guy's

L. G. Morey, b. Lewis	26
J. A. L. Leeming, b. Lewis	32
P. H. Birks, c. Yeldham, b. Lewis	0
H. D. Foster, b. Lewis	25
G. M. A. Brown, c. Lewis, b. Rick	44
C. G. Wright, c. Rivett Camac, b. Lewis	31
F. K. Johnson, b. Rick	1
T. J. M. Lowry, l.b.w. B. Rick	4
R. L. Skea, b. Lewis	3
A. L. Young, not out	0
W. Wylde, b. Rick	4
Extras	11
Total	181

Guernsey Island C.C.

Capt. Yeldham, c. Lowry, b. Skea	27
J. Willis, b. Skea	12
P. Craig, l.b.w. B. Skea	1
Lt. Bird, c. Johnson, b. Wylde	0
J. Preston, b. Morey	11
Capt. Ingall, b. Skea	6
G. Parke, b. Morey	22
Lt. Rivett Camac, b. Skea	46
H. J. Rick, run out	10
V. A. Lewis, not out	31
A. V. W. Young, not out	0
Extras	16
Total for 9 wickets declared	182

GUY'S *v.* SHERWOOD FORESTERS

THE Sherwood Foresters were unable to put their strongest side into the field, and Guy's won rather easily by 8 wickets.

The Sherwood Foresters, on winning the toss, were unable to do very much with the Hospital bowling and only amassed a total of 44, the wickets being taken by R. L. Skea (5 for 24), W. Wylde (3 for 4) and L. G. Morey (3 for 9).

Guy's lost L. G. Morey and H. D. Foster before the total was passed, but J. A. L. Leeming again batted very well for 28. The remaining batsmen decided to attack the bowling, but the score only reached 116 for 9 wickets. For the Foresters, Capt. Ingall bowled very well, taking 6 wickets for 41.

At the close of the game the team were kindly invited to the Officers' Mess, where a very enjoyable half-hour was spent.

GUY'S v. VICTORIA COLLEGE

A VERY early start had to be made for Jersey the following morning, as the boat was due to leave at 7.15 a.m., but, by a most extraordinary piece of good fortune, everyone was on board in time, although with only a minute to spare.

In Jersey two matches were played, a one-day game *versus* Victoria College and a two-day match against Jersey C.C.

Victoria College won the toss, but fared badly against the bowling of R. L. Skea and A. L. Young, three wickets falling for nil and 5 for 19. G. W. Knight, however, played a very plucky innings of 22, but the College were all out by 12.30 for 63. The wickets were taken by L. G. Morey (4 for 20), R. L. Skea (3 for 32) and A. L. Young (2 for 2).

With forty-five minutes' play left before lunch the Hospital innings was opened by J. A. L. Leeming and L. G. Morey, who scored 54 without being separated before the interval.

This being the last day of term an interval was taken in the game after lunch while the school gave a gymnastic display and speeches were made.

On resumption at 4.15 the match, although practically over, was watched by a large number of parents and friends, who were treated to some bright batting by the Hospital. Leeming and Morey took the score to 101 before Leeming was bowled for 48.

The Hospital declared at 170 for 4 in order to give the College another innings, Morey having made 60, including four sixes and five fours, and C. G. Wright 38, including seven fours.

The College fared better in their second innings, and at the close had scored 59 for 4 wickets.

GUY'S v. JERSEY

IN the last match of the tour against Jersey Island a two-innings match, the Hospital were beaten by an innings and 111 runs.

Guy's, on winning the toss, decided to bat, but were unfortunate in that the wicket turned out very tricky before lunch owing to rain the previous night. J. A. L. Leeming alone batted with any confidence in making 27, and Guy's succumbed to good bowling by K. Glary and S. Nober, totalling 88 in all. Geary took five wickets for 18.

Jersey had three wickets down for 73, but B. W. Richardson (107) and K. Geary (101) indulged in a big stand, Jersey eventually declaring at 323 for eight wickets.

Guy's on batting again seemed to have little confidence, and were rather demoralised by the large deficit which they had to face. In spite of a real captain's innings of 50 by G. M. A. Brown, the innings closed at 124. S. Nobes was the most successful bowler, taking four wickets for 25.

Guy's

First Innings

G. M. A. Brown, b. Geary	0
J. A. L. Leeming, c. Noakes, b. Bolland	27
H. D. Foster, b. Geary	8
L. G. Morey, b. Wilks	14
P. H. Birks, b. Nobes	15
C. G. Wright, run out	1
F. K. Johnson, b. Geary	4
T. J. M. Lowry, c. Brigstocke, b. Nobes	6
R. L. Skea, not out	5
A. L. Young, c. Gough, b. Geary	0
W. Wylde, b. Geary	0
Extras	8
Total	88

Second Innings

G. M. A. Brown, b. Wilks	50
J. A. L. Leeming, c. Lees, b. Geary	10
H. D. Foster, l.b.w. B. Nobes	19
L. G. Morey, c. Wilks, b. Geary	2
P. H. Birks, b. Nobes	11
C. G. Wright, b. Nobes	1
F. K. Johnson, c. Noakes, b. Bolland	1
T. J. M. Lowry, c. Wilks, b. Bolland	14
R. L. Shea, b. Nobes	2
A. L. Young, c. Gough, b. Noakes	8
W. Wylde, not out	0
Extras	6
Total	124

Jersey Island C.C.

G. K. Dupré, c. Wright, b. Skea	40
A. G. Wilks, hit wicket, b. Young	1
A. S. Dickenson, b. Skea	27
B. W. Richardson, c. Johnson, b. Skea	107
K. Geary, c. Brown, b. Wylde	101
L. Noakes, c. Brown, b. Skea	3
J. E. Lees, b. Skea	20
S. Nobes, c. Brown, b. Skea	10
Extras	14
Total for 8 wickets declared	323

This being the final match the party disbanded the following day, some staying in Jersey an extra day to see the "Battle of the Flowers," some returning for a few days to Guernsey, and the remainder returning home either via Southampton or Weymouth.

Lawn Tennis

WE must congratulate the 1st VI on getting into the final of the Inter-Hospitals Cup, and hope that they will repeat their former successes against Westminster in the final.

St. George's gave us a walk-over in the first round.

The second round *v.* Bart.'s resulted in a decisive win for Guy's by ten matches to two, in spite of the absence of F. J. Piercy from the team.

The loss of only one of the singles gave Guy's a winning lead before the doubles were commenced.

The semi-finals *v.* St. Thomas's also resulted in a decisive win by seven matches to three. Of the six singles Guy's lost only one, while one was drawn.

Guy's put out their best team, namely :— H. G. N. Cooper, F. J. Piercy, K. Chartihavanij, H. R. S. Harley, R. S. Stevens.

We congratulate R. S. Stevens on getting into the team.

The 2nd VI lost to Bart.'s in the second round after a very close match, in which Bart.'s ultimately won the last and deciding match.

Hospital Information, etc.

Notice

GUY'S HOSPITAL DENTAL SCHOOL

Applications are invited for the appointments of :—

(1) Dental House Surgeon in the Prosthetic Department, and

(2) Junior Dental House Surgeon in the Children's Department,

duties to commence on October 1st, 1936.

Applications should be lodged in the Medical School Office not later than September 18th.

T. B. JOHNSTON,
Dean.

Pass List

UNIVERSITY OF LONDON.

SECOND (M.B., B.S.) EXAMINATION FOR MEDICAL DEGREES.

PART I.

July, 1936.

T. A. H. Adkins
L. J. Blay
J. E. Bulow
J. C. Bulstrode
J. P. Crawford
J. E. Gilbert
G T. Hammond
J. L. G. Hartley
D. G. Horan
W. James
B. D. L. Johnson
H. A. Kreiser
R. Leigh
J. A. MacDonald
G. MacVicar
R. Moore
K. W. N. Palmer
H. G. Phillips
E. R. Roseveare
W. Sewell
R. Wadia
H. W. Wheate
J. H. Wildman
D. R. C. Willcox
J. R. D. Williams

FIRST (M.B., B.S.) EXAMINATION FOR MEDICAL DEGREES.

July, 1936.

EXTERNAL STUDENTS.

J. P. Crawford
J. A. Gillett
W. Sewell
R. South
J. R. Lauder
V. J. McLean
C. C. Spicer
P. N. Swift

FIRST (M.B., B.S.) EXAMINATION FOR MEDICAL DEGREES.

July, 1936.

INTERNAL STUDENTS.

B. B. Alhadeff
S. Coffey
E. B. Dawe
R. Franey
R. A. Gill
E. J. Grierson
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R. J. W. Rees
L. Rendell-Baker
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FINAL EXAMINATION.

July, 1936.

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D. H. Mackay
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Midwifery.

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N. C. Creighton
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J. W. Hallam
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H. A. McDonald
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A. A. Shein
R. J. Simms
I. E. J. Thomas
L. C. Thomson
J. A. F. Tobin
F Walt
A. D. Willis

* Have completed the examination.

SOCIETY OF APOTHECARIES.

FINAL EXAMINATION.

July, 1936.

Midwifery.

P. H. Denton
P. A. Gardiner
H. D. Lamb

FINAL EXAMINATION.

August, 1936.

Surgery.

*A. G. T. Brown.

Medicine.

*A. G. T. Brown
W. G. Zorab

Midwifery.

*A. G. T. Brown
B. A. R. Pitt

Forensic Medicine.

*A. G. T. Brown.
W. G. Zorab.

* Has completed the examination.

Papers by Guy's Men

Guy's Hospital Reports, Vol. lxxxvi, July, 1936.

C. H. Fagge. The Hunterian Oration on John Hunter to John Hilton.

Ronald E. Smith. Influenza.

G. A. M. Lintott. Ætiology of cancer of the stomach: (1) Factors involved in the varying incidence in different classes and different countries; (2) A comparison of the diet and dental conditions of the English and Dutch, with special reference to gastric irritants.

Arthur Bulleid. The relation of pulpless teeth to general disease with special reference to periapical rarefaction.

R. S. Bruce-Pearson. Two cases of recurrent swelling of the parotids.

E. T. Conybeare. A case of leukæmia simulating acute rheumatism and Still's disease.

Hugh Barber. The laryngeal vertigo syndrome.

C. G. Pantin. Acute peritoneal irritation; cases showing the paths taken by fluids in the peritoneum.

H. C. Cameron and S. de Navasquez. A case of epituberculosis with terminal tuberculous meningitis with post-mortem findings.

R. E. Smith. A review of recent work on whooping cough. *Quart. Jour. Med.*, 1936, v. (n.s.), 307.

A. H. Douthwaite. Lumbago and sciatica. *Lancet*, 1936, ii, 326.

W. H. Ogilvie. Prognosis of inguinal hernia. *Lancet*, 1936, ii, 272.

Frank J. Pearce. Presidential address. *Brit. Dent. Jour.*, 1936, lxi, 146.

W. E. Herbert and Another. A comparison of the diet and dental conditions of the English and Dutch, with special reference to the pathogenesis of carcinoma of the stomach. *Brit. Dent. Jour.*, 1936, lxi, 153.

Arthur Bulleid. Infection and the systematic sequelæ of multiple extraction of teeth. *Dental Gazette*, 1936, i, 722.

A. H. Douthwaite. The treatment of obesity. *Brit. Med. Jour.*, 1936, ii, 344.

R. W. B. Ellis and Another. Duodenal stenosis. *Proc. Roy. Soc. Med.*, 1936, xxix, 1213; Sect. Study Dis. Childr.).

W. W. Payne. Diabetes mellitus with an unusually low rental threshold for sugar. *Ibid.*, 1216.

Maurice E. Shaw. ? Intermittent claudication. *Ibid.*, 1226 (Clinical Sect.).

H. W. Barber. Hereditary alopecia in mother and daughter. *Ibid.*, 1283 (Sect. Dermat.).

L. J. Witts. Dermatomyositis. *Ibid.* 1291.

T. Izod Bennett and Another. Treatment of severe diabetes in children with protamine insulinate. *Lancet*, 1936, ii, 416.

E. C. Warner. Treatment of lymphadenoma with a sensitised vaccine of the elementary bodies. *Lancet*, 1936, ii, 417.

V. E. Lloyd. The diagnosis and treatment of the local complicacions of gonorrhæa in the male. *Practitioner*, 1936, cxxxvii, 152.

Frank J. Pearce. First Empire Dental Meeting, opening address. *Brit. Dent. Jour.*, 1936, lxi, 197.

L. J. Witts. Effect of toxic substances on the blood-forming organs. *Brit. Med. Jour.*, 1936, ii, 211.

F. A. Knott. Abortus fever. *Jour. Clin. Res.*, 1936, xxii, 85.

V. E. Lloyd. Vaginal discharge in adults. *Ibid.*, 90.

Sir Wm. Hale-White. Guy's Hospital Physical Society. *Med. Pr. and Circ.*, 1936, cxciii, 182.

Births

ECKHOFF.—On August 26th, 1936, to Audrey, wife of Nils L. Eckhoff, M.S., F.R.C.S.—a son, Ernst Peter Bothwell.

GIBBERD.—On August 1st, 1936, to Margaret Erica, wife of G. F. Gibberd—a daughter.

Eds. { M.A.P. / A.G.W.H.

GUY'S HOSPITAL GAZETTE

A Journal of Medicine, Surgery, Dentistry and Hospital News.

PUBLISHED FORTNIGHTLY.

Volume L — *26th September* 1936 — *Number* 1257

PASSIM

THE sum raised since the launching of the Appeal on July 16th has reached £42,609 19*s.* 7*d.* It will be seen that this represents an advance of only about six hundred pounds in the last fortnight. This drop in the receipts was, however, anticipated at this time of year by the organisers, and it must be remembered that the major press campaign has not been started, nor have the many resources of the City of London been approached. Therefore have we no cause to complain. Further particulars relating to the Appeal will be found overleaf, to which readers are especially asked to refer.

LAST Saturday the Hospital rugby side played its first game of the season, and was defeated by 20 points to 8 by Catford Bridge. Such a start may seem somewhat discouraging, and constitutes something of a record, for we are told that it is more than ten years since we have lost to these particular opponents. However, long sequences of victory are monotonous, and though, perhaps, the defeat was heavy enough to be disquieting, we feel that it is too early to criticise, and hope that with practice the side will settle down to improve on last season's record.

An account of the game appears elsewhere in this number.

NOT so long ago, a student of human nature confided to us that he had counted the number of people using the Wills Library one day last week. At this time of approaching examinations there were twelve. Now, it may have been the lunch, or the warmth of the autumn afternoon, or just *ennui*, but a differential count revealed that five of them, or 41.7 per cent., were, as the Senior Surgeon would say, "in coma."

WE have been asked by the Everyman Theatre, Hampstead, in view of the unique opportunities afforded by the medical and nursing professions for observation of humanity and life, and the great success of plays in the West End by medical men, such as "The Wind and the Rain," "The Sleeping Clergyman," "Storm in a Teacup," etc., to give prominence to their courses in Dramatic Production.

There is to be a week-end course in practical play production at the Everyman Theatre, at 2.30 p.m. on Sunday, October 11th, and continuing at fortnightly intervals until December. By means of the specialised course in stage technique, opportunity is afforded for gathering that understanding of stage technicalities and sense of the theatre that is essential for all aspiring dramatists.

All readers are, through the kindness of the management, invited to attend the inaugural meeting of the course at the Everyman Theatre, Hampstead, on Sunday, October 11th, at 2.30 p.m. There are to be demonstrations on stage technique, acting, stage design and make-up, together with performances of classic and modern plays. Application for free tickets of invitation should be made to the Hon. Secretary, Little Theatre, Citizen House, Bath. A stamped addressed envelope should be enclosed.

RECENTLY we have indicated with pleasure the contributions by members of the Staff to the Press, but they have not been alone in the limelight, for on opening an evening paper not long ago we were amazed to see the photograph of a Guy's nurse entering the Old Bailey. We were further horrified to read that she was accused of being "improperly dressed," but our anxiety was short-lived, and visions of a too hasty change from uniform, of safety pins stretched beyond endurance or even of feminine shorts so frowned on by the Church, faded away. She had merely omitted to wear a hat, and with a resourcefulness of which we feel Millicent Ashdown might well be proud,

made herself one out of a pocket handkerchief.

" Beachcomber's " subsequent remark that the matter of hatless women in the Law Courts would prove of interest to those who were interested in the matter of hatless women in the Law Courts assumes a significance of which, perhaps, the author had not dreamed.

▭

IF one were to write a satire on the British Medical Association, one supposes that one would depict them meeting at Blackpool. And now they have done it! Too late, it is true, for the joys of the Great Wheel, and a little out of the season, but it was Blackpool for all that. And surely something of the gaiety of that great watering place must have infected them; it was with great pleasure that we read of Dr. Poulton, in his analysis of the rush of modern life and why we are all wrecks these days, contributing a spirited defence of the sherry party.

▭

IT was the editorial privilege to attend, on Saturday, September 19th, the first national baby show ever held in this country. The headlines in the popular papers, " Astonishing Scenes at the Crystal Palace," hardly did justice to the most hysterical and hilarious afternoon we have ever experienced. We had been invited some days previously in the capacity of judges; we had accepted in a spirit of helpfulness. We anticipated, in so far as we thought of it at all, a scene of some decorum, with radiant babies, washed, weighed and classified, brought to us in the arms of nurses, practical, professional and charming.

We had had a premonition over the telephone that all was not running smoothly, but we were in no way prepared for the pandemonium that we found. On arrival at the Palace we were ushered, like distinguished foreign diplomats, in among the statues and stuffed elephants, but some time then elapsed before we were given attention. Suddenly, surrounded by mothers, Councillor Fruitnight, the organiser, approached us, keenly conscious of the chaos he had caused. Only one-eighth of the judges had arrived. Apparently there was no organising committee. Mothers were everywhere that babies were not; the air was filled with unseemly din. Through a screaming sea we were led to the Ambassadors' Room, where an astounding scene met our eyes. The two judges, overwhelmed, stood in a whirl of struggling, crying, micturating, naked children; in the midst of it was a pair of watery twins, peacefully asleep. An abortive attempt at weighing some of the entrants was taking place in a corner. After a hasty conference we decided on the system of marking, a responsibility which devolved upon us. Then we ourselves started. After a few minutes the nurses, and who should blame them, gave up the struggle, and the room was given up to the efforts of the mothers, who besieged the judges' table, elbowing, struggling for precedence in unseemly competition. On the rare occasions when one had time to look up, a row of noses was seen flattened against the glass panels of the door; the next batch with its young was waiting for admittance. There were neither time, opportunity, nor (beyond a pair of scales) facilities for weighing the competitors. One used trust in the mother and one's womanly intuition. Suddenly the official forms ran out. There had been over a thousand gate-crashers, and by some mistake of management they had been mingled inextricably with the accepted entrants. So notes of all and sundry were made on scraps of paper. Medical Out-Patients at its worst could not even begin to compare with this. In three hours we saw children from Scotland, Durham, Newcastle, twins from South Wales, Redruth, Ramsgate, Canterbury, Brighton, and a few from Walworth, whom we may have seen before. The tragedy of it was that money which meant much was spent to so little purpose. In the middle of the afternoon it was suggested, for some reason that we never discovered, that we should judge them all again. In the meantime an organist for the great organ and a brass band had been called in to soothe the savage breasts, a feat in which they had remarkably little effect. Between us we judged them all at last, and, besieged by reporters, escaped by a back door, leaving the mothers calling for blood and Councillor Fruitnight, who had deemed further judging to be unnecessary. We do not know if much glass was broken. If this was the first national baby show, it seems likely to be the last. As such perhaps it has served its purpose, for these unique methods of spreading infection and animalising the maternal instinct have little, it seems to us, to commend them.

THE APPEAL

AS stated in " Passim," the results of the Appeal have now reached a little over forty-two thousand five hundred pounds. Among the later gifts which have been received are an anonymous donation of fifty pounds, with a request that it should be acknowledged in the *St. Pancras Gazette*, five shillings in farthings saved by a generous child, and a gift of gold. The

latter consisted of twenty-four soveriegns and thirty-two half-sovereigns. The donor was Lalas W., and his gift was acknowledged in the personal column of *The Times*. Each sovereign was sold for thirty-two shillings and threepence, and every two half-sovereigns together fetched thirty-two shillings, so that the total was thereby increased to sixty-four pounds three shillings.

HELL DRIVING

We have been asked by the Appeal Committee to urge our readers to give the fullest support that they can to the following project. Chrysler Motors, Ltd., have arranged a series of demonstrations of motor acrobatics, which will take place at the Wembley Empire Stadium on the following dates :—

Friday, October 16th, at 3 p.m.
Saturday, October 17th, at 8 p.m.
Tuesday, October 20th, at 8 p.m.
Wednesday, October 21st, at 3 p.m.
Thursday, October 22nd, at 8 p.m.

We understand that motor acrobatics are also known by the more picturesque term of " hell-driving." Specially selected hell-drivers are to give demonstrations of driving like hell. The spectators will see skidding of hair-raising order, obstacles will be surmounted, gates will be cleared, and cars will drive through fire. It is anticipated that between twenty and thirty thousand people will attend each performance. By the generosity of Chrysler Motors, Ltd., all fees received for car parking will be given to the Hospital, and we have also been given permission to collect. It is in this matter that we would ask for all possible support. Special arrangements have been made to convey collectors from the Hospital to Wembley. Coaches will leave Guy's at 1.30 for the afternoon performances, and at 6.30 for the evening performances. All students who will be willing to help in this matter should give in their names to the Appeal Office, where they will be able to obtain, through the courtesy of the organisers, free tickets for their friends. It is very much hoped that this project will meet with a ready response, for it is possible that a great harvest might be reaped.

Obituary

HUGH HARDY BEDFORD

THE suddenness of Hugh Bedford's death has mingled a feeling akin to horror with the grief of those who knew him well. To have seen him among us and then a few days later to hear that he is no more is so bewildering that we scarcely know how to express our sadness. For one so young, and on the threshold of a promising career, death has all the bitterness of a blind injustice. It seems to us who have worked with him since he entered the Medical School in 1931, particularly hard that he should be cut off now that he had come within a few months of qualifying.

His unobtrusive kindliness and his incomparable generosity were traits in his character which endeared him to us all. Let us think also of his immense fund of humour, and of his gaiety, so very infectious that no party was ever complete without him. His vitality and the happiness with which he infused his associates will be sorely missed, and even now a full realisation of his death seems hardly possible. Yet we ought perhaps, like Seneca, to " rejoice that we possessed him rather than bemoan his loss."

To his parents and their family we tender our deepest sympathy in their tragic loss.

His many friends at Guy's will long remember him. They will miss his carefree manner and his high spirits bordering at times on recklessness, and the rather narrow world which rotates around Maze Pond will seem a shade duller by contrast.

J. C.

Industrial Dermatitis

A Clinical Lecture delivered at Guy's Haspital by L. Forman, Esq., M.D.

GENTLEMEN,—Industrial dermatitis can be defined as including those inflammatory changes in the skin produced by exposure to various substances at work. These include changes of simple hypertrophy of the epithelium, localised or diffuse, *e.g.*, the warts due to exposure to arsenic or tar in fine state of division. Malignant changes, basal celled carcinoma or more commonly epithelioma, may occur in these warts or they may arise *de novo*.

The common agents capable of acting as irritants have been tabulated by Prosser White :—

Group 1.—Mechanical or Physical : Friction, cold, heat radiations, actinic rays, heat, dust.

Group 2.—Detergents and Keratin Solvents : Warm water, soaps, mild alkalis, turpentine and its substitutes.

Group 3.—Desiccators, Anhydrids : Strong acids, strong alkalis, glycerine, hypertonic solutions.

Group 4.—Protein precipitants : All heavy metal salts, alcohol, carbolic acid, tannic acid, picric acid.

Group 5.—Oxidisers, poisonous to protoplasm : Nitrates, chlorine gas, iodine, bromine preparations, bleaching powder, chlorate and nitrate of potash, permanganates.

Group 6.—Reducers in weak solutions are keratoplastic, in strong concentrations keratolytic : Metol, hydroquinone and photographic developers generally, finely divided metals, formalin, paradehyde, salicylic acid, formic acid, oxalic acid.

Group 7.—Keratogenic and neoplastic : Arsenic, distillates of bituminous coal, petroleum, shale.

Group 8.—Anaphylactic idiosyncrasy : Aspirin, benzene, mercury, iodoform, woods (teak and satinwood), poison ivy, vegetable lacquer.

The list does not mention the dermatitis seen in some people handling flowers, bulbs or nickel salts. The latter cases are not common save in workers employed in nickel plating.

Thus in 370 persons employed in a nickel-plating works, according to Dubois (" La Dermite du Nickel," *Schweiz. Med. Wchn. Schr.* i, 278, March 21st, 1931), only 20 were able to continue to work without interruption for two years, because of attacks of dermatitis, but as L. Goldman points out (*Arch. Dermat. & Syphil.*, Nov., 1933, vol. xxviii, 688-696), other substances such as magnesium sulphate and sulphuric acid were also present in the bath in which the workers had to immerse their arms. This indicates the necessity of tests with all these likely sensitising substances before the nickel salt can be incriminated.

Flowers and vegetables are among the less common causes of dermatitis, but are well recognised and appreciated by the workers themselves.

Some two years ago at Dr. Barber's Out-Patients a female patient complained of an acute vesicular eruption in the fingers and hands each spring, at the time she was occupied picking daffodils.

The cause of this acute dermatitis was indicated by applying the stalks of daffodils to the patient's forearms. At the end of 24 hours this produced an acute vesicular dermatitis of the skin where applied.

Again, some individuals are sensitive to orange skin and workers peeling the fruit may develop dermatitis of the fingers.

The dermatitis may not, however, be a simple sensitisation to the vegetable or fruit handled.

Thus workers handling tulip bulbs develop a paronychia. Bertwistle (*B.M.J.*, August 10th, 1935) showed that trauma played a part in its production. Beneath the testa of the tulip bulb are barbs rigid enough to penetrate the skin in vulnerable positions such as the region of the nail. The bulb substance contains maltose, and it is the fermentation of the sugar on the fingers which produces substances irritating to the skin.

Trauma in the nail folds with a secondary monilia infection is probably the cause of that chronic paronychia with much swelling of the tissues around the nail known as " bolster fingers " seen in sugar workers making preserved fruits. A similar condition is seen in barmaids and washer-women. The maceration of the nail fold with water and the presence of a sugar allows the vigorous growth of the monilia.

There are certain *predisposing factors* to the development of an industrial dermatitis or eczema, particularly when due to defatting agents, soap, water, alkalis or other common irritants.

The type of skin, whether abnormally dry, or the reverse, where there is excessive sweating, is important. Thus in an ichthyotic skin there is a congenital abnormality, the dryness is due to poor development of the sebaceous and sweat glands. An external irritant more readily comes into contact with the horny layer cells without the interposition of a protective grease sebum layer.

Excessive sweating will wash away the sebum, and sweat can, by accumulation in the flexures of the webs of the fingers, produce maceration of the horny layer cells, allowing an external irritant to come into contact with the living stratum mucosum cells. Sweat may also put some external irritants into solution and encourage more intimate contact with the skin.

There are certain general factors which may lower the resistance of the skin to an external irritant, particularly to the common acids or alkalis, or water. Dermatitis is seen not infrequently appearing for the first time after influenza. The nutrition of the epidermal cells, their ability to multiply and repair minute breaches, is impaired, and external irritants are not so well tolerated. Septic foci may diminish epithelial vitality and some workers emphasise the importance of dealing with septic teeth and naso-pharyngeal foci in trade dermatitis. Anæmia, with its demonstrable

effect on the skin and the skin appendages, should be remembered. With increasing age the skin cells together with other tissues will not react as efficiently to external stimuli, and the sebaceous glands also become atrophied. Thus defatting irritants more readily produce a dermatitis.

The habits of the individual at his work can be considered among the predisposing factors favouring the development of a dermatitis.

If the atmosphere of the workshop is hot and damp, sweating is encouraged. If the air is dust-laden the clothes become impregnated, and the particles can act as mechanical irritants even if they do not contain any chemical capable of irritating the skin.

The lack of a good soap and adequate supplies of warm water at the workshop, to cleanse the skin of dust or dirt, or oil and grease, would predispose towards the development of dermatitis.

Commonly, however, the substances used to clean the skin are of themselves capable of provoking a dermatitis. They include strong antiseptic soaps, spirit, turpentine and alkalis.

Thus in most of the french polishing workshops of North London it is the custom to clean the stain from the hands with spirit or to wash the hands in a very strong washing soda solution. I am convinced that many of the cases of dermatitis of the fingers developing in the workers at this trade are not examples of specific sensitisation to the pigments, but to prolonged contact with irritant solutions.

Individuals of allergic stock with family histories of asthma or eczema or both are prone to develop sensitisation of the skin to certain contact substances such as flowers, nickel or chemicals, and this applies to cases where there is a history of infantile eczema in childhood, followed by a flexural eczema and prurigo.

I will detail the changes seen in the skin which may be met with.

With contact with water and/or alkalis, the first sign is dryness of the skin with slight scaliness and a tendency to crack as the horny layer is not well formed and lacks cohesion. The hands of all washerwomen show this change. If the process is taken a stage further the irritant provokes a reaction with redness and some swelling of the skin, with oozing of serum from the surface, the serum drying up to form crusts. Instead of a diffuse inflammatory reaction there may appear small vesicles showing through a normal horny layer, the skin being a little red. This type of eczema is the more frequent reaction to a chemical to which the skin is extremely sensitive. The vesicles may increase in number, rupture and become confluent, the serum drying on the surface as crusts, the end stages being indistinguishable from the simple dermatitis described above.

If suitable treatment is instituted, avoidance of the irritant, rest, the application of soothing lotion, *e.g.*, calamine lotion, if there is much swelling and redness, or boracic and starch poultices if crusting is severe, there should be a return to normal within a few weeks. If, however, treatment is not careful and thorough, the skin remains inflamed and coarse in texture, the horny layer is badly formed, and the cells nucleated, tending to separate off, producing scaling. The scale will be dry and white, or yellow, depending on the degree of admixture of serum discharged through the spaces between the stratum mucosum cells.

Irritation is a prominent symptom of an industrial dermatitis. The inflamed skin is scratched vigorously and excoriated, often with secondary pyococcal, streptococca or staphylococcal, infection.

The constant rubbing of a sensitised skin will produce the thickening and pigmentation of the skin known as lichenification or prurigo simplex. The scratch reflex will tend to become systematised for this particular area of skin, and the resulting thickening will be kept up for a considerable period after the external irritant has been removed.

Contact with tar and mineral oils can induce epithelial hypertrophy with the formation of warts or keratoses, or epithelioma. The oils irritate the follicles, and comedones are characteristically to be seen on the backs of the fingers and forearms. The follicles also become more liable to infection and the picture of "oil acne" is characteristic—comedones with indolent staphylococcal pustules, some reaching the size of a pea.

Tar may sensitise the skin to light, and some workers employed in spraying the roads whitewash their faces and arms to protect the skin from the sun.

A word can be said about the interval between exposure to an irritant at work and the appearance of an eruption. In some cases, contact with photographers' developers or other chemicals may within 24 hours produce an acute dermatitis. In these instances the individual has inherited an idiosyncrasy to the chemical. In most other cases the skin will show an inflammatory reaction only after a period of time, depending on the readiness with which the skin becomes sensitised. The strength of the irritant and the duration of exposure to it will be important factors in the appearance of a dermatitis.

The diagnosis of cases of industrial dermatitis due to certain chemicals is obvious, but many cases of dermatitis or eczema of the hands and face, or involving larger areas of the body, give

rise to difficulty and legal actions. Thus cases of scabies, or psoriasis, have been certified as industrial dermatitis.

The knowledge of a patient's work, the type of reaction which has occurred and the area of skin involved, are points to be considered. When the work has been stopped there should be a definite process of healing of the skin, which should be complete within a reasonable time.

A recurrence of the eruption when the work has been resumed is evidence of a causal connection.

Testing the skin with suspected substances by patch tests is one of the best methods of demonstrating sensitisation of the epidermis. The chemical is applied, in concentrations not irritant to normals, on lint and bandaged under gutta percha tissue. The same method can be used with suspected metals, *e.g.*, nickel coins, or chromium sulphate, flowers, vegetables, etc., and the skin observed at 24 hours. A positive reaction would be shown by erythema and some swelling of the skin (with perhaps vesicle formation) beneath the test substance.

The difficult cases of dermatitis are those which do not clear up within a reasonable time after being taken off work, where there are signs and symptoms of dermatitis of the fingers and hands, for example, for a year or more. There are two common causes for this persistence. Some, particularly females, although off work because of a dermatitis due to water and alkalis, still do some of their household duties, using soap and water. Then most cases under the Workmen's Compensation Act are receiving half or full pay while away from work. The patients are aware that if they return to work a recurrence is likely, with a further period of unemployment. They may be looked upon by their employers as unsuitable because of the liability to break down, and may be discharged. While out of work receiving compensation the workman has a feeling of some security and has regularity of income, and, not unnaturally, is averse to return to work until he himself feels that he has quite recovered.

The attention given to the skin, the feeling that irreparable damage has occurred, that work may be difficult to obtain in the future, and in a few instances the desire to make profit out of the disability, are all factors in delaying healing. The patient may exhibit neurasthenic signs, sweating of the hands, tremor, inability to sleep or to concentrate on the most simple duties, with complaint of extreme itching even when the skin shows little on inspection. Constant scratching of the skin takes place, with excoriation or lichenification as a result. In some of these cases prompt settlement of the claim for a lump sum is the best method of clearing up the skin symptoms.

In conclusion, some constructive proposals in dealing with these cases.

All workmen on being first engaged at occupations known to be capable of producing a dermatitis should be examined medically, and their skins passed as being likely to withstand the substances handled.

If chemicals are being used to which many workers are known to show an idiosyncrasy, patch tests should be done and sensitive individuals may be detected.

Proper facilities for cleansing the skin should be provided, and the cleaning materials should be as bland as possible.

Regular inspection of the skin should be carried out, and at the first sign of breakdown skin treatment instituted, and the return to work should not be allowed until at least two to three weeks after the skin has healed.

Stammering and its Correction; A Comparison of Methods

A Clinical Lecture delivered at Guy's Hospital on Monday, 7th September, 1936, by St. John Rumsey, Esq., M.A.

GENTLEMEN,—A few years ago it was sufficient for the general practitioner, when consulted about a stammer, to say, "He will grow out of it," but to-day, with the rapid growth in speech therapy of which the press is constantly reporting fresh progress, parents hope for some guidance in the matter.

This expansion has been extremely rapid during the last three years; almost every week news cuttings reach me, reporting a lecture, or telling of the opening of a new clinic in the provinces. The expansion has been in four directions: first, by the opening in the provinces of clinics similar to those organised by the L.C.C. in the London area. Secondly, there has been formed a Society of Speech Therapists, by some of the younger women who are practising. This newly formed body sent a representative recently to Vienna to a Speech Conference, and a return visit was made during July of this year, when I had the pleasure of seeing the Viennese representative, who came to observe the work being done at our clinic and

afterwards discussed various methods used in Germany and Austria and compared them with those used in this country. Both these countries have given careful attention to this subject, and as recently as five years ago were far ahead of us in this country, so any comparison of methods with them is of definite advantage. Thirdly, three widely advertised lecturers have attracted considerable attention in London and the provinces and have been freely quoted in the press. Fourthly, there has been a definite increase in the treatment of stammering by psycho-therapy. So much for the expansion, now we must try to ascertain what is definitely known about stammering.

A full explanation of stammering is no easier to give than a full explanation of electricity; we know a good deal about both, but there is still a good deal which we do not know. There are, however, some definite mannerisms which occur in all cases of stammering. First, all stammerers use a light or breathy tone of voice which lacks the firmness and clearness of the average voice and is in sharp contrast with the vocal tone of the trained singer or speaker. Secondly, they all speak rapidly; when I say this I do not mean that thousands of other people do not speak as rapidly without stammering, but if you listen you will notice that stammerers attempt to speak more rapidly than is justified by their skill. Thirdly, and this is the most important point, they all speak *staccato*. You must pardon my use of a musical term, but it describes most accurately this very important mannerism. Their speech is *staccato* as opposed to *legato*, they speak in jerks instead of smoothly with an even flow of vocal tone running through each phrase, as is usual with the average speaker, and is a distinct feature in trained speakers. I want you to note this jerky speech with its definite break of the flow of vocal tone, because it is this breaking of the vocal tone which constitutes what we call a stammer. This jerky speech is caused by concentrating on consonants rather than vowels. In the articulation of the consonants the emission of the breath and vocal tone are checked, whereas, during the phonation of the vowels, the vocal tone is comparatively freely emitted. All good speech depends on keeping the correct balance between the articulation of the consonants and the phonation of the vowels; the latter should always predominate, whereas in cases of stammering the consonants always do so. Fourthly, stammerers always use false rhythm. Throughout the ages writers have tried to define rhythm without complete success, but if you will think of typical stammering speech you will realise how stammerers distort the normal rhythmic flow of any sentence. Fifthly, all stammerers reveal definite breathing irregularities, sometimes by a diaphragmatic spasm, but much more often by a sudden emission of breath so that the lungs collapse and no breath is left for the continuation of the word or sentence. Sixthly, all stammerers show muscular tenseness in the throat and face; tenseness in severe cases is seen in the jerky movements of the arms and legs. Lastly, there is definite and obvious lack of laryngeal control in all cases of stammering.

Apart from the seven speech characteristics described above, the element of fear is present in every case. This is proved by the stammerer's ability to speak with absolute fluency when alone in a room, or by the fact that he stammers more with some people than with others.

Now I want you to think of speech from another angle; think of small children when first learning to speak. They all speak in jerks and stumble over the difficult consonants, and they all try to speak too fast. I want you to notice the similarity between their mannerisms and those of the stammerer. In my opinion every small child is a stammerer, that is a stumbler in speech, but 99 per cent. of them gain control and learn to speak normally. One per cent. becomes conscious of his difficulties, anticipates failure and develops into what we call a nervous stammerer.

Now I want you to turn your attention to the question of heredity: Is stammering inherited or not? All children learn to speak, not from experts, but by imitation of parents or nurses, so the child of a stammering parent imitates the rhythm and mannerisms of stammering speech. I have never seen the stammerer both of whose parents spoke slowly and smoothly.

Those who depend upon psycho-therapy for the correction of a stammer may say that the neurotic tendency is inherited from the parents, while those who rely on voice production would suggest that in cases of stammering parents, the children develop a stammer by imitation. Both are equally convinced that their theories are correct!

So much for stammering and its mannerisms; now we must see what methods of correction are in regular use. There are four: first, speech training; secondly, training in deep breathing and general relaxation, the method used in the L.C.C. clinics; thirdly, psycho-therapy; and lastly, elocution.

Let us consider the first, speech training and voice production. The late H. Plunket Greene, the great singer and teacher of singing, who died about three weeks ago, is said to have greatly benefited the art of song by insisting upon the "essential similarities between song and speech." This is

of great importance, because it is the foundation of the correction of stammering through voice production. We are not bi-vocal, we use the same organs in speech and song; we all know that the stammerer, if musical, can sing without difficulty. All of you who sing (or, rather, all of you who sing by request!) will realise how training speech on the lines of song would correct all the stammering mannerisms which we have considered. Light, breathy tone will become firm. Staccato and jerky speech will become smooth with the even flow of vocal tone we hear in song and in the best of our public speakers. Speech balance will be restored when the vowels predominate slightly over the consonants. False rhythm will be corrected. Breathing irregularities will be corrected by teaching breath-control by the intercostal muscles and the diaphragm, while this breath-control will be greatly assisted by the greater vocal cord resistance which results from the use of a full and firm vocal tone. I am convinced that the sudden emission of breath during a stammer is due to the sudden opening of the vocal cords when they should be approximated for phonation; the necessary and automatic breath pressure is applied, but since there is no cord resistance, the breath escapes without producing vocal sound. This explains the stammerer's ability to sing. While singing, his attention is focussed on phonation, and it is this concentration which keeps the cords approximated. Lastly, tenseness of the muscles of the throat and neck is eliminated.

I want to make it absolutely clear that training for public speaking or the stage, and the correction of stammering should be identical, but in the case of stammering the faults are accentuated to a degree which upsets the mechanism of speech. When speech training is mastered and the habit of firm, slow and smooth speaking is established, a stammer is impossible. I speak with the experience of having stammered myself, and corrected myself entirely by voice production and speech training.

You will naturally ask if this method produces 100 per cent. success. I admit quite frankly that in many cases there is a strong reluctance to take the plunge to change over from rapid, breathy and jerky speech to the correct way. Most people are self-conscious about speech. How many of you here would get up and speak in public for ten minutes? It is inevitable that the stammerer should be abnormally self-conscious over matters connected with his speech. In such cases as these failure can be turned into success by persuading the patient that the new way is the correct and better way, and that to change his speech for the better is much less conspicuous than to stammer.

Then again there are cases in which the stammerer clings to his disability as a protection against work; his reluctance to follow advice may be subconsciously due to the wish to postpone work, but I have found that it is often better to get him to begin work and come for a cure after he knows the worst. Then again a stammerer may be inclined to avoid social mixing; not long ago I had a patient at the clinic who came to find out if she could learn to speak, although she had been stone deaf from childhood. I had to say some very rude things about her in an undertone, before she lost her temper and told me what she thought of me!

The L.C.C. method which concentrates on deep breathing and relaxation must be considered. It is difficult to account for the fact that out of the seven typical mannerisms of the stammerer two only are selected for correction; this is the more remarkable because, as I have pointed out, these seven faults are found in a less degree in a normal person who seeks speech training for public work. There is no doubt that deep breathing is beneficial on grounds of general health, but when taught to correct stammering it is essential to remember that in nearly every case the stammerer's breathing difficulty is caused, as we have seen, by insufficient cord resistance. In this connection I am reminded of what Dame Nellie Melba used to say. Her advice was, "Never take more breath than you can comfortably control." With regard to the general relaxation, it is admittedly very difficult to teach to, and to be learned by, even educated people, and I cannot see a useful connection between relaxation of the arms and the production of open tone. If complete muscular relaxation is of value, why not order the child to go to bed one or even two hours earlier?

The L.C.C. method is admitted by those who practise it to take a long time, the average case needing some three years. In Germany and Austria it is generally agreed among speech-therapists that a cure should be quick, a matter of months rather than of years. My own experience is in agreement with this opinion. If the patient is anxious to adopt the change and is musical, a couple of weeks will often be enough with a few "tuning in" lessons, similar to those required by a singer or public speaker. If there is not a quick improvement some psychological help is needed. But the weakest point in the L.C.C. method is that the patients are made to read together. All stammerers are in any case fluent when speaking or reading in chorus. Who ever heard of a stammerer having any difficulty in church?

Psycho-therapists claim that as long as the underlying fear is present no speech correction can cure a stammer, but it must be remembered that if the stammerer can be persuaded to adopt correct methods a stammer is impossible, however nervous he may feel. It has also been said that speech training will make the patient "speech conscious." I find that rather unconvincing as an argument, because speech is a matter of co-ordinated muscular movements just as much as playing cricket or golf. If good coaching does not make the cricketer "stroke-conscious," why should speech-training make a stammerer "speech-conscious"? It is also true to say that even if the fear is removed and the incorrect speech mannerisms remain, a relapse is possible, or even probable. Remember how children of stammering parents become stammerers themselves by imitation.

It has been stated, too, that stammerers are generally below the average in work and games; my experience has been otherwise, the majority of patients I have seen have been above the average in work, while a very large majority have been well above the average in games.* Within the last two years I remember two expert swimmers and a rider in the Grand National. In all three cases all trace of stammer had disappeared.

Speech-therapists in Germany and Austria hold the opinion that the ideal method is to combine speech training with psychological treatment, and I have no hesitation in saying that they are right.

Lastly, something must be said about elocution. If the basis of elocution were voice production (as it should be) this warning would not be necessary, but modern elocution has been developed on the lines of dramatic training, and examinations for diplomas. In many schools of elocution the final teacher's diploma includes a statement that the holder has studied speech defects and methods of correcting them. In most schools this study of defective speech consists of one lecture by an elocutionist; I know of only one school in which instruction in speech defects is given by a speech therapist with a hospital appointment. Knowledge of voice production is generally almost non-existent, as is indicated by a recent occurrence. Within the last few months a teachers' course was organised at one of the big schools of elocution, which also acts as an examination centre; a lecture was given on voice production, and the lecturer informed his audience that vocal tone was not produced in the larynx, but in the sinuses which produced notes of definite pitch as in the case of a church organ. The audience listened with close attention, and no one present asked how, if the sinuses acted like organ pipes, a singer could sometimes sing out of tune or readjust to the accompaniment of a piano of slightly different pitch. Until elocution is on sounder lines with some guaranteed knowledge of voice production and the mechanism of speech, it is obvious that much harm may be done by asking an elocutionist to correct a stammer. This harm would indeed be almost certain, inasmuch as speech training by elocutionists is generally limited to the teaching of overstressed consonants, which, as we have seen, is one of the mannerisms of the typical stammerer.

*(Kay Stammers?)

Gargling

By A. Bowen-Davies, Esq., F.R.C.S.

GARGLING has been prescribed by mothers, school matrons and medical men for many years. It is perhaps for this reason that its efficacy as a method of prophylaxis or treatment has not been called in question.

A recent article in the *Lancet* prompted us to investigate how efficiently astringents and antiseptics may be applied to the tonsils and pharynx by this method, and accordingly twelve volunteers in the Ear, Nose and Throat Department gargled with liquor potassium permanganate, using a solution of sufficient strength to stain mucous membrane with which it came into contact. In only one case was there any staining on the tonsils or pharynx. In four cases the anterior pillars of the fauces were stained, whilst in the remaining seven cases the mucous membrane behind the last molar teeth was normal.

This shows quite clearly that even in the hands, or throats, of experts whose gargling left little to be desired, the efficiency of the method was very low. It is probable that in the case of the average patient who takes away a bottle labelled, "The Gargle—Poison—Not to be Swallowed," little finds its way behind the premolars.

In spite of this, the practice will continue, because in certain cases it brings relief to the patient. Anyone who has had a mild pharyngitis or tonsillitis has experienced the relief which follows a gargle with mist. pot. chlor. et ferri.

This mixture is more than a gargle, however, because it is finally to be swallowed. For this reason a less cautious method may be employed, but in the light of our observations the preliminary gargle could be dispensed with in the majority of cases. Hot gargles are soothing to those afflicted with acute inflammatory conditions in the throat. In most cases, however, these lotions are not gargled in the true sense of the word, because the swallowing reflex is so much in abeyance that a hot mouth-wash may remain in contact with the pillars of the fauces without risk of being swallowed.

It is not denied that in certain cases a gargle may penetrate to the epiglottis without being swallowed, but these are few. If this number is to be increased, the horror of swallowing the mixture should be removed by prescribing only innocuous gargles, or preferably those which should be swallowed.

The Spanish Tragedy

By Miss Doig, Matron of the College

I WAS in Madrid with my sister when Senor Calvo Sotelo, a prominent Loyalist leader, was murdered on July 14th, and there was a good deal of excitement. On the day of the funeral there were a great many people about, especially men, and it reminded me of the streets in the General Strike here in 1926. There were some hostile incidents in the cemetery, and cafés were raided, and cars, trams and even pedestrians were stopped and searched for arms. We were warned not to go to any café that evening. A young Spaniard had told our English friend that he was to shoot at random at any café, merely to create a terror. Notices of a state of alarm were posted up everywhere, but no one seemed particularly worried. That sort of thing wasn't unusual. Things seemed to be normal when we left for Barcelona on the night of July 17th. We travelled at night to avoid the heat of the day, and the train was very crowded. There were a great many men travelling, and they spent most of the night talking in the corridor. Everybody was very friendly, and the night passed pleasantly enough. We were met by a Spanish friend, who asked us a good many questions about the state of Madrid, and she was quite satisfied that things were quietening down; she was an ardent Government supporter. After we had rested, we went out in the evening, and noticed that the streets were very busy, and there was a good deal of excitement. I had particularly wanted to go to see one of the churches, but our Spanish friend was very reluctant; she probably knew that they would be the first places to be destroyed if there were any disturbance.

We were awakened very early on Sunday morning, by a radio announcement that a revolution had started, and giving instructions to the Government supporters. This was repeated every half-hour, and then at longer intervals, but as it was in Catalan we didn't understand very much. Soon, however, we realised that there was terrific excitement outside, and we got up to see what was happening. The streets were deserted, but every balcony was crowded; everyone was chattering like monkeys. We dressed quickly and called to our landlady to ask what was the meaning of it all. She, however, did not enlighten us for some considerable time. Although we could hear firing in the distance, it took some time to understand that we were in a real revolution. Presently there was a constant stream of motor cars with men with rifles, some with red rags tied on them, rushing up and down the street. All traffic, except for these armed cars, had ceased. There was a morning delivery of bread and milk, but nothing more. We tried to telephone some English friends, to let them know that we were in Barcelona, and to ask what we should do. But the telephones were not working; though I heard afterwards that at certain districts and at odd times people had been able to telephone, we never could. All private cars were commandeered by the Government. The noise was indescribable. Most of the cars were driven by young men who had never driven before, and they drove on their horns at great speed, taking the corners on two wheels. There were many smashes and accidental shootings, as they kept their fingers on the triggers of their rifles all the time. I saw one smash in which two men were injured by their own rifles, and an Englishwoman whom I subsequently met on board the cruiser told me that she had seen a car which was full of young men with bombs collide with a tree, and they were all blown up.

It was unsafe to go out, and we spent most of the day on the balcony. We could see the smoke from many fires, and were told that churches and convents were being destroyed. We made the acquaintance of all our neighbours from the

balcony, but they told us very little, and assured us that things would be better to-morrow. Somehow the day passed, and that night we heard that there were two hundred dead.

We slept badly, and were on the balcony very early on Monday morning for news. There was the same excitement, but more people in the streets. They were fetching what food they could get from the market, which quite close. Most of the balconies had a white rag hanging, and our landlady put one on ours. This was a sign that we were unarmed. Firing broke out very early, but it was still in the distance. There was the same stream of cars with armed men, and occasionally a girl in a car also with a rifle, and the cars were now padded with mattresses taken from hotels. The cars all had different signs. Private doctors' cars were marked " Medico " and had a white flag. The carts bringing the dead had black flags and had two armed men with the driver. There was considerable firing in the distance. About nine o'clock two churches and a convent in our neighbourhood were set on fire. Armed men carried out the altar, images and crucifixes, and made bonfires in the street. This convent adjoined our building, which we were afraid would catch alight. About twelve o'clock the fire brigade came, and stayed half an hour ; it came back twice in the afternoon and evening. Shooting was going on all around. We tried to telephone several times, but had no luck. That night we heard that the famous Rambla and Plaza de Cataluna were heaped with dead. The fighting had been fiercest there. As it grew dark the firing grew less. About ten p.m., worn out with excitement, we went to bed, only to be awakened at 11.30 by firing from our own roof. We decided to stay where we were rather than go out into the hall, which opened off a central well in the building and where we had spent most of the day. Our beds were on either side of the french windows, and we pulled the shutters down for protection from stray bullets. None came our way, fortunately.

The battle raged for three-quarters of an hour, and then we heard the party on our roof run away, and the footsteps of those pursuing them. In the morning (Tuesday) we discovered that a monarchist captain lived in the flat below, and that he, with some others, had been firing at some Government supporters from the roof. We sensed that the situation was better, and after breakfast we ventured out with our landlady to the market. There was a certain amount of food to be had, but prices were going up and everybody seemed suspicious. There were a lot of armed men about, and cars and people were being searched. Boys, mere children, were now armed with rifles ; they looked most dangerous. We bought some food and hurried back to the flat. While we were having lunch our building was raided and searched by the Government side. Our landlady was a Norwegian, but she had a permanent boarder who was a Spaniard, and he asked her if he might burn his prayer book and some papers in the kitchen stove, in case that if they were found he would be taken for a churchman and shot. They weren't burning quickly enough, and he put some papers down the lavatory and choked it. I noticed that our dear old landlady did not remove her Bible from the table. They were evidently after the monarchist captain, and we heard later that he was caught and executed. Once again we had to spend most of the day in the hall. We had another scare later in the evening while we were having supper. Firing started in the Plaza, but soon ceased. We never discovered the reason, but there was a large petrol garage opposite, and I expect rebels were sniping at Government cars going in. There were armed men guarding it, who pointed their rifles at us when we appeared on the balcony. That night they told us that there were a thousand dead.

We felt that we could not sleep another night in our room, which overlooked the Plaza ; we asked if we could sleep in a room at the back, and our landlady willingly consented. Sleep, however, was impossible, for we heard the lift working all night and realised that our neighbours were taking some part in the revolution and coming home in the early hours.

We dressed early the next morning, Wednesday, and decided that we must risk going out to find the British Consul. The streets were full of people, and beautiful cars were lying smashed everywhere. Cars full of armed men were still dashing about, and everyone was giving the Communist salute when they passed. We tried to avoid this, but once I looked at a car, and rather foolishly stared as it passed, when, to my astonishment, a young man levelled his rifle at me. I was too surprised to do anything, but my sister quickly raised her hand in salute and all was well. We had some difficulty in finding the Consulate, and had constantly to ask directions, but the people were actually kind and helpful. At last we saw a small car with a Union Jack, which we followed, and turning the corner saw the Consulate. We were tremendously relieved to be in touch with English people again. The Consul was on holiday and the Vice-Consul was acting. They were very charming, but not very helpful. I think the difficulty was that they could not get into touch with any responsible person on

the Government side. So they just couldn't tell us anything, but took our names and address. They did say that they were trying to arrange for buses with a guard to go over the frontier to Bon, and that a British warship was coming in, but we would require to come back at four o'clock for further news. I asked if, in the event of our getting away, some sort of conveyance would be sent for us, but they said that they couldn't, as there was only one small car. I heard afterwards that several British people had offered their cars before the Government had commandeered them, but they had been refused. We arranged that we would send the *portero* at four o'clock, if we could persuade him to walk so far. The Consul told us that the post office was open and that we could send telegrams. We had to cross the Plaza de Cataluna, which must have been a scene of carnage; there were wrecked cars, shell-holes, broken glass, and dead mules being burned. Barricades were all down the Rambla, made of paving stones and tram rails torn up. At the telegraph office there was a queue a hundred yards long and four deep, but fortunately the queue at the radiograph office was smaller. We sent a radiogram home that we were safe, and we had to give a Spanish translation so that they knew what message was being sent. I spoke to an Englishwoman there and she told me the next day when I met her again on the cruiser *London* that ours was the last message to go through. The operator had told her that he had been sending messages since very early in the morning, and he couldn't carry on any longer. The telegram that we sent never arrived; they were in the country, of course, but the radiogram did get through to Scotland.

The *portero* very kindly went to the Consulate at four o'clock, but there was no news. That day passed without incident. The Government was evidently in control of Barcelona, and practically all the churches and convents had been destroyed. The working men expected to return to work very soon, and large numbers of volunteers were being sent to Saragossa.

The *portero* returned from the Consulate at 11.30 on Thursday morning with the news that we were to be at the Consulate with our luggage at twelve o'clock, and, fortunately, he offered to carry our suitcase, or we should have had to leave it behind. We were dismayed, when we arrived at the Consulate, to be told that we had to walk to the Port. The British cruiser, H.M.S. *London*, was in the harbour, and no buses were going over the frontier. It was a very long and wearisome walk all down the Rambla, and we had to push and jostle our way through the crowds. We were jeered at once or twice by some young men who were not armed, but they were mostly concerned with the march of representative parties of various workers' unions and the recruiting depots. There were very long queues waiting at the latter to offer their services. We were very much surprised that we could see no sign of looting. As we passed along the quay we noticed that the Customs Offices were deserted and partly wrecked. When we reached the *London* our way was barred by *carabineros*, who sent us back along the quay to a French liner to pass the Customs there. We had to declare how much money we had, and were given vouchers showing that we were authorised to take that amount out of the country. An Englishman we met there, evidently a British Consulate official, quietly told us that we could only take five hundred pesetas. We were careful not to declare more, and hoped that we wouldn't be searched. The suitcase and our attaché cases were opened and a very perfunctory search made. Our reception in the *London* was wonderful—never had I received such kindness and consideration. We were asked if we would like to get off that evening on a destroyer to Marseilles, or stay for a day or two and see if things would quieten down, and in that case we could go back overland to Santander and pick up our luggage, which we had left there. We had return tickets to Plymouth from Santander on the *Cordillera*, a Hamburg-Amerika boat, but we decided that we would go to Marseilles on the destroyer. We were shown our quarters (the petty officers' rest room) and told that we would share it with eighteen other ladies. We seemed to be the first arrivals, certainly in that cabin. We were given tea and told that a mail would leave in half an hour if we would like to send any letters. Soon the cabin began to fill with fresh arrivals, all looking as if they had had a bad time, and everyone was given tea. One of the later arrivals, Miss M. G. Miller, had been a probationer with me at Guy's twenty years ago. She was very sorry to be sent home, but her three months' permit had elapsed and, things being as they were, it was impossible to have it renewed.

After supper, the destroyer *Douglas* left for Marseilles with sixty-five refugees of all nationalities on board, but we were not allowed to go till the morning. Accommodation is very limited in a destroyer, and only three ladies were allowed to leave that night, all the others being men. The band played on deck till 9.30. I talked to a young officer, and he told me that they had been stationed at Alexandria for nine months and were on their way to Malta on leave, when they received a message to steam with all haste to the rescue of the British in Barcelona, and to their surprise when they arrived the harbour was deserted

except for one man fishing. They had to tie themselves up, and had expected to take us on board that night. But, as I have already said, no one could get into touch with any responsible person acting for the Government. The men were prepared to march into the town should it be necessary, and I believe it was only after the Admiral Max Horton had gone on shore and stormed at somebody that we were allowed to go on board on Thursday.

When the band had finished playing, we went back to our cabin. Twenty stretcher beds had been arranged side by side all along the room with a blanket and pillow each. I don't know where the officers and men slept, as all available room had been given up to the refugees. We had a fairly comfortable night, and were about very early in the morning. Breakfast was at six o'clock, and a very good one it was. All those who wished to leave gathered on deck, and 130 of us were taken on the destroyer *Gipsy* to Marseilles. We left at 7 a.m. in glorious sunshine, expecting be in Marseilles between 3 and 4 o'clock, but ran into a fog about 2 o'clock and never got clear of it. As we got clear of the harbour we passed two Italian cruisers. They couldn't enter for fear of hostile incidents, but the British cruiser was tied up to the quay, with the mob alongside. We felt very proud of our Navy. As soon as we were well out of the harbour, seats were produced and improvised in the most marvellous way, and when these failed to meet the demand the men brought up their mattresses for us to sit on. At 10 o'clock lemonade was brought round, and at 11.30 lunch started in relays. A stew with vegetables and a nice pudding, which were both very good, were provided. As the fog became very dense, we were cleared from the bows of the ship, and the siren blew continuously, but there was never any answering sound. After tea a wireless message from the Consul at Barcelona was handed round saying that the British Consul at Marseilles had been instructed to request Messrs. Cook to make arrangements for the hundred and thirty British refugees arriving on the destroyer *Gipsy*.

The naval ratings organised a concert somewhere in the depths, and did everything they could for our comfort. We were given supper at 6.30 p.m. We had made marvellous time till we ran into the fog, but after that we lost three-quarters of an hour an hour. One of the petty officers told us that they would give up their cabin for ten of us if we had to stay on board for the night. About 9 o'clock a message was sent round to tell us that the Commander knew where we were, but that we had missed the pilot and he thought it advisable to put out to sea again. Ten of us were taken to the petty officers' cabin, which was down in the depths. There we found ten beds ready, four on a seat that ran all round the cabin, and six mattresses on the floor touching each other. We were very glad to lie down, and it seemed as if we had only just closed our eyes when a voice shouted, " Get up, ladies, we have made port." The Commander had very cleverly got in by directional finding. It was then 11.15 p.m. We scrambled on deck and collected our luggage, but it was almost twelve o'clock before we docked. The British Consul and some French officials came on board. We queued up and gave our particulars to the British Consul, stating how much money we had. If it was enough to get to England he merely wished you good luck, but if not he asked you to go to the Consulate in the morning. Cooks' man was on the quay, and the hotel buses were waiting. Two hotels had been engaged by the Consul, one for the British workers' Olympic party and one for the rest of us. At the hotel Madame was inclined to be brusque and refused our Spanish money, but when we produced our English money she became quite pleasant. It was good to be in a comfortable bed again.

In the morning we changed a hundred-peseta note at Cooks', getting a hundred and forty francs for it. We then thought we would see how much the bank would give, but at two different banks they held up their hands in horror when we mentioned pesetas. We were obliged to go back to Cooks', and were much chagrined to get only a hundred and twenty francs this time, and half an hour later they were giving only a hundred francs for a hundred pesetas. The cashier told us that they were now changing two thousand pounds' worth and no more. Later we met some of the people who had had to go to the Consulate for help, many of them British residents in Barcelona, who were now almost penniless. The Consul paid their hotel bills, arranged with Cooks' for their tickets, and gave them fifty francs for their travelling expenses. It must have been a very harassing morning for the British Consul, and later in the day another boatload was to arrive, and it would be the same thing all over again.

We left Marseilles at 8 o'clock that night, and arrived in London at 6 o'clock on Sunday evening, firmly convinced that there was no country like England.

The Editor will, at all times be glad to consider articles or sketches, provided that they are accompanied by the writer's name and address, not necessarily for publication. Authors who desire reprints of their papers should make their own arrangements with the Printers when they return their proofs. All contributions to be addressed to *The Editor*, who does not accept responsibility for the views expressed by contributors.

Correspondence

Wintering Abroad

To the Editor of the GAZETTE

SIR,—To any Guy's man who is contemplating wintering abroad I shall be happy to give particulars of a general practice with a first-rate nucleus which, as far as I know, is going a-begging at a well-known health resort on the Italian Riviera and where there is " no opposition."

An experienced practitioner of middle age with private means anxious to winter in a sunny and quiet spot where there is a friendly atmosphere and an English church and library might find this place very congenial.

Yours, etc.,

H. J. SPON.

Milton Abbey,
Blandford,
Dorset.

The Wellcome Museum of Medical Science

To the Editor of the GAZETTE

SIR,—I am writing this letter in deference to many who have recently asked me why this Museum is not better known to London medical students. Our records show that over 7,000 doctors, students and nurses visited it last year, which is a good attendance for a museum catering only for the medical profession. Senior students, however, have often expressed regret that they did not discover it sooner, and for their benefit I give the following details :—

1. The Museum presents a graphic representation of medicine in all its branches. It differs fundamentally from the ordinary pathological museum.

2. It has special value for senior students who are engaged in revision work.

3. A great effort is made to keep it absolutely up to date. Of special value are the classified collections of cuttings which deal with all the more important recent work in medicine.

4. The Museum is free to anyone in the medical profession—doctors, students and nurses.

5. It is situated at 183-193, Euston Road, in the building of the Wellcome Research Institution, which is about 200 yards east of Euston Square Station.

6. A short visit will certainly prove of interest and will quickly tell a student whether the Museum is likely to be of value to him or not.

Yours, etc.,

S. H. DAUKES, M.D.,
Director.

Reviews

Recent Advances in Radiology. By PETER KERLEY, M.D., D.M.R.E. Published by Messrs. J. & A. Churchill. Second Edition. Pp. 322. *Price* 15*s*.

THE second edition of Kerley's " Recent Adances in Radiology " has been somewhat enlarged. Numerous additions have been made to the chapters on the skull, lungs, bones and the gastro-intestinal tract. The chapters on the heart, renal and biliary tracts have been completely rewritten and some 70 new illustrations and radiographs add to the value of the work.

It is true that this compact volume is a modern textbook of radiology rather than a volume of recent research in the abstruse and unenlightened fields of X-rays technique ; this, however, rather enhances than detracts. There is a large and representative bibliography at the end of each chapter for anyone who cares to explore further afield.

The author has successfully correlated pathological and radiological appearances, and the text is all the more readable for his occasional sallies into the treatment of the lesions.

It is disappointing that there are no radiographs of bone syphilis—not even one of the classical congenital epiphysis—and that the author did not discuss the application of the cinematograph to radiology, its value and its pitfalls. There are many other minor omissions, especially in the radiography of fractures, teeth, and disease of the joints ; however, these are of little import.

The book is a valuable one, especially to those who, not intending to make a life-work of radiology, will use it as an aid to clinical medicine and surgery.

M. K.

Sport

Rugby

Guy's v. Catford Bridge

THE Hospital opened the season on September 19th with a home fixture against Catford Bridge, but were surprisingly defeated by the heavy margin of a placed goal, a penalty goal and 4 tries (20 points) to a placed goal and a try (8 points).

This year our opponents are celebrating their jubilee, and Guy's will be the first to wish them every success. Their team has been strengthened by the arrival of three New Zealanders and P. H. Davey, of Rosslyn Park, to their back division, and provided they steer clear of injuries they should have a very successful season.

Guy's were in the fortunate position of having all last year's team available, with the exception of J. van A. Steytler (on holiday) and K. A. Stanyon-Jaques (injured).

However, one or two changes were made in the forwards, with a view to giving more weight to the pack, and C. F. Ziervogel, who was injured for the greater part of last season, was included in the back row and A. Forbes displaced E. B. French in the second row.

P. D. Jones, a freshman from Taunton, who had done well in the trials, was given his chance at scrum-half, and D. M. Douglas was given preference on the left wing.

Both sides took a few minutes to settle down, and the first effort to break through came from Guy's, when Dick made a clever run on his own, but after side-stepping several opponents he was brought down in their 25.

A penalty to Guy's for offside nearly brought a goal, when Wright took a difficult kick from near the touch-line, but the ball fell just short of the crossbar.

After Guy's had done most of the pressing, Boty and Williams retaliated, and carried play to well within the Hospital's 25. A scrum followed, and a wild pass by Jones to Allen was intercepted by Davey, who ran in for a try, which Mortimer failed to convert.

Stung by this sudden reverse, Guy's attacked immediately and, following a great kick to touch by Halamandres, a magnificent movement followed when Allen sent Dick away down the centre and, after drawing two opponents, he passed to Wright, who cleverly swerved past the full-backs to score an unconverted try.

Catford quickly regained the lead when Mortimer kicked a penalty goal, and they went further ahead, after Sperring, their full-back, had found touch near the corner-flag.

Following a scrum on the Hospital goal-line, Mortimer barged his way over and converted his own try.

For some time Guy's pressed, but after a series of passing movements between the backs, Allen missed a pass by Jones, and this let in Pickmere, who raced from his own half to score a try behind the posts.

After the interval, Guy's were a different side; they hammered away at their opponents' line and within five minutes reduced the deficit by five points. On two or three occasions they came within an ace of scoring, and only superlative tackling kept them out. Eventually Allen cut through, with Fletcher in support and, when faced by the full-back, passed to Fletcher, who scored under the posts for Dick to convert.

The Hospital continued to have the best of the game, but after failing to profit from two penalties for offside, they fell away and Catford obtained another surprise try.

They had been confined to their 25, when suddenly Mason and Pickering worked their way along the left wing and about fifteen yards out the latter cross-kicked. Halamandres fielded the ball, but the opposing forwards were up so quickly that he was caught in possession under the goal-posts.

Murphy dispossessed him and scored a simple try near the posts, but was unable to add the goal points.

In the last few minutes Guy's appeared to tire and, following some snappy passing between their forwards, Ross James scored the final try for the visitors.

The result is very disappointing, but there is no doubt that once the Hospital settle down they will do much better.

Unfortunately, Halamandres broke a finger and will be unable to play for two or three weeks.

Team.—C. Halamandres; C. G. Wright, R. C. S. Dick (Captain), I. McD. Stewart, D. H. Douglas; R. D. Allen, P. D. Jones; C. S. Darke, E. S. Nicholson, H. H. Crabb, E. B. Davies, A. Forbes, P. Fletcher, C. F. Ziervogel, R. O. Yerbury.

Cricket

IN spite of weather not altogether helpful to feats of brilliance on the cricket field the season now concluded has been the most successful one for some years past.

Secretaries in office during the last year or two have turned their attention to the improving of the fixture list, which, it may now quite truthfully be said, has become representative of first-class London club cricket.

With this fact in mind it will be seen by the season's record of 23 matches played, of which 9 were won, 7 drawn and 7 lost, that the First Eleven has put up a very good performance.

In the Senior Cup Guy's were beaten by St. Mary's in the second round, the Hospital just failing to seize upon that one chance, the holding or failure to hold of which so often makes the difference between the winning or losing of a game.

The batting, which extended down to number nine, has been very consistent on the whole, G. M. A. Brown, the captain, although missing several matches in the middle of the season, heading the list with the excellent average of 38.21.

The bowling has been of the steady variety, but has often lacked sufficient thrust to press home an early advantage.

The fielding, on the whole, has been up to average club standard, T. J. M. Lowry taking most catches with a total of 12.

Thus, with the standard of the Hospital cricket advancing from strength to strength, next season may be looked forward to with the expectation that it will be still more successful than the season of 1936, and the assurance that a very determined effort will be made to bring back the Cup to Guy's.

L. G. MOREY,
Hon. Sec.

BATTING AVERAGES

	Innings	*Runs*	*Highest Score*	*Times not out*	*Average*
G. M. A. Brown	16	535	92	2	38.21
L. G. Morey.....	22	526	84	4	29.22
J. A. L. Leeming	16	357	78*	2	25.5
P. H. Birks	17	374	73*	2	24.93
H. Jones-Lewis	7	130	47	1	21.68
T. D. Ridsdale	15	302	53	0	20.13
G. O'Gorman	16	265	34	1	17.66
T. J. M. Lowry	18	261	59*	3	17.4

*Not out

BOWLING AVERAGES

	Overs	*Maidens*	*Runs*	*Wickets*	*Av'ge*
L. G. Morey	112	14	433	32	13.53
C. L. T. McClintock	82	10	244	17	14.35
W. Wylde	171	32	559	36	15.53
G. O'Gorman	99	7	545	34	16.03
F. W. Rushby	72	7	284	11	25.82

Hospital Information, etc.

Prizes and Scholarships

We congratulate the following on their academic distinctions :—

Confined Junior Science Scholarship (£100)—
Mr. S. Muntarbhorn.

The Edgcumbe Prize for Junior Science—
Mr. R. A. Gill and Mr. G. McFall, bracketed equal.

The Charles Oldham Prize in Ophthalmology (£30)—
Mr. S. H. Raza.

The Charles Oldham Prize in the Neurological Aspects of Ophthalmology (£30)—
Mr. G. E. Yardley.

Papers by Guy's Men

W. Kelsey Fry. Complete denture construction. *Dental Record*, 1936, lvi, 627.

A. H. Douthwaite. Gastrogenous Polyneuritis. *Brit Med. Jour.*, 1936, ii, 535.

T. F. Todd. New Uterine Dilator. *Lancet*, 1936, ii, 636.

W. R. Reynell. Depression. A symposium of early mental disorders. *Practitioner*, July, 1936.

Marriage

GLYNN-JONES—FARR.—On September 1st, 1936, at St. Mary's, Wimbledon, William David Glynn-Jones, M.R.C.S., L.R.C.P., of Moretonhampstead, Devon, to Effie Agnes Farr, of Wimbledon.

EDS. { M.A.P. / A.G.W.H

GUY'S HOSPITAL GAZETTE

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PASSIM

IT is our first duty at this time of year to welcome the newcomers to the Hospital. This annual number of the *Gazette* is devoted to their interests that, like all true pilgrims through life, they may not be without their Baedeker. While a number of this sort may prove as dull as can be to those who are already with us, yet it may, one supposes, be of use to those who are not so familiar with our customs. We hope that the new arrival will find in these pages such information as he may want. There are accounts of all Hospital organisations, with the exception of the Officers' Training Corps, which will be dealt with in our next issue.

It will be seen that to those entering the Medical School a chance of some social life is offered through the Physiological Society, while those who join us at a more advanced stage may find the Physical Society more suited to their needs. The Debating Society will welcome all, and there is also a Musical and Operatic Society. It will be seen that there are, in addition, more than usual athletic facilities. A list of the incoming students and a time-table of work in the Medical and Dental Schools is also added.

Dr. Herbert French, on being asked why he chose Guy's as his hospital, is said to have said that it was so handy for the station. We hope that this year's freshmen, whatever their reasons, will never have cause to regret their choice, and that they will find life at Guy's acceptable.

SUMMER is now officially over; we have put the clocks back, our overcoats on, reclaimed our woollies and in the all-too-soft glow of our gas fires have begun to think of winter and the beginning of a new academic year.

The opening of the winter session is always distinguished by the Annual Address and Prize-giving in the Medical School, and there is often considerable speculation as to who will perform the ceremony. We have been fortunate in recent years in listening to addresses by many eminent men; last year it was Sir Kingsley Wood, the Minister of Health, and this year we learn that we are to be honoured by a visit of Viscount Dawson of Penn, Physician to His Majesty, who will present the prizes in the Medical School on Monday, October 12th.

Lord Dawson is far too well known to need any introduction from us, and we need only say that we look forward to his address with the greatest interest.

A MEMORIAL service to the late Mr. J. A. Carleton Hunter was held in the Chapel on Thursday, October 1st. His untimely death is a loss both to the Hospital as a whole and the Dental Department in particular, and we would extend our sympathy to his relatives. An obituary appears elsewhere.

IN our last number we drew attention to the fact that, in their opening game, the Rugby team broke what we were told was a ten-year old record in losing to Catford Bridge by the decisive margin of 20 points to 8. Since then they have sustained two other heavy defeats, by Coventry and the United Services, Portsmouth, which, allowing for the fact that Coventry are probably about the strongest side in the country, seems a somewhat discouraging start to the season. However, we feel confident that there is no dearth of material with which to build a sound side, and we sincerely hope that with diligent practice, adequate coaching and, above

all, time to find its feet, the team will have better fortune and will settle down to improve upon its record.

ON Wednesday, October 21st, the President's Prizes will be competed for at Sundridge Park Golf Club. There are two 18-holes handicap prizes (morning and afternoon), 36-holes handicap aggregate prize, 36-holes scratch prize, and a special handicap prize for the best score for players with handicaps of 18 to 24.

The green fee for the day is 2*s.* 6*d.*, and the meeting is open to Staff and Students. For details see the notice in the Colonnade or apply to the Hon. Secretary.

IT is alleged that a new reform has been introduced. We have no official notice of this, but the voice of echo has reached us from the Committee Rooms. It is said that the "Ex H.S." (*i.e.*, he who works with the "Take-in H.S." and gives his anæsthetics) is to be relieved of his anæsthetic duty, owing to the provision of a second resident anæsthetist. This appointment of a second resident anæsthetist has already been made, and we congratulate Mr. R. W. Cope on having secured it. By this new system the life of the Ex H.S., while he may lose some anæsthetic experience, will be relieved of much of its burden.

EVERYONE has pointed out to us a careless mistake in our last number in which we spoke of the British Medical Association in mistake for the British Association. We publish elsewhere a letter on this matter from an official of the B.M.A. We would apologise to the latter institution for having imputed to them so undeservedly the frivolity of arranging a meeting at Blackpool. It was, of course, the British Association which we really meant, for it is only truly great organisations of this kind, like the Conservatives who hold their meetings at Dreamland, which can so sublimely overcome the ridiculous.

THE Superintendent was rung up by the police last Sunday; they gave a warning that, owing to Sir Oswald Mosley's plan of marching through the East End and the determination of the East Enders to stop Sir Oswald Mosley, there might be a considerable influx of casualties. Actually the number of casualties involved was exceedingly few, and none of them came to Guy's. But that was, no doubt, because the march was abandoned. In a spirit of curiosity we had sauntered down to Whitechapel that Sunday. The morning we spent at Petticoat Lane, and as a Sabbath diversion this is to be strongly recommended. The market is much bigger than we had expected; it extends down the whole length of the Lane itself (which, somewhat surprisingly, is officially called Middlesex Street) and into streets crossing it and streets parallel with it beyond. We saw everything on sale, from pig-skin suitcases to chocolate creams, from opera glasses to overcoats, and there was a little furtive sale of racing tips and contraceptives. The prices of most things did not seem to us remarkably low, but the quality on the whole was surprisingly high. The human interest was present here and there; at one stall it was possible to have a shampoo in the street, at another corns were cut for all the world to see; at the latter were some of the seediest specimens of humanity we have ever seen, living testimonials to the chiropodist's art, with surprisingly clean feet bared for inspection; there was one old tabetic with a pair of forceps stuck through a perforating ulcer on the sole of his foot.

We had our weight guessed (incorrectly, and so free of charge) by a weight guesser; we saw a strong man tear a London telephone directory (A—K) into quarters with his hands, and we saw a man eat an electric light bulb. This last, Mr. Arthur Haylock, of Dalston, deserves alimentary investigation. He told us that his was a dangerous practice, that lack of skill might mean damage to the throat with a serious operation, or even perforation of a main vessel, and that, with these dangers, he could hardly afford to do it for nothing, but that if there were twenty-four sportsmen present who thought that such a spectacle was worth a copper coin, why, then he would oblige. And there were. So, after clearing off the children (who, he assured us, tried to imitate him and died with lacerations), the show proceeded. During the previous week, he told us, he had eaten a gas-filled globe, which had exploded in his face at the first bite, with alarming results. He therefore now begged our leave first to nick off the top. This he did and, having given one piece to one spectator and the other into our own hands, he began. He started on the smaller, and, giving the jagged glass a savage nip, he chewed a piece into fragments, and continued until he had it comminuted on his tongue; he then, with his mouth full, approached us for the larger piece. The glass spike in the middle and the filaments he tore off and threw away, saying through his mouthful of glass, "Thehsh gifh meh indigheshtion," but he ate the rest with a will. We urged him to eat the metal when that alone remained, but he muttered, "I couwd, buh ih isn'h worth my while foh thwo bob, is ih?" and we agreed. Then, with a great draught of water, he swallowed the lot, and with a jaunty manner and resumption of normal speech, he said, "Now, just to show you, ladies

and gentlemen, I haven't a laryngeal pouch, as some people say I have, I'll show you my mouth." We didn't get a very good view either of the larynx or the pharynx, but he certainly had a laceration or three of the tongue. After which he ate a safety-razor blade and a bit of gramophone record. He told us that he had learned of his gift by accident, but he also said that both his father and his mother could do it. We asked if he had any children who could do it; he said that he was about to start his three-months old son on a ten-inch gramophone record. He also showed us an alimentary X-ray taken, he said, at the London Hospital. He explained that it showed a pencil top, fragments of razor blade, some glass and a sixpence. We had no reason to doubt him. He told us that he had been offered money by the London Hospital for a more complete investigation, but that he would not yield up his secret. He certainly had us guessing. If the X-ray were not a true bill, and if he had achalasia of the cardia, or a pharyngeal pouch of some kind, it still seemed a dangerous enough occupation. But he said he had eaten eighteen bulbs that morning, and thrived upon it.

We went down to the Whitechapel High Street, where a vast crowd drifted aimlessly about. The traffic was disorganised, and it was not mere fancy that an air of expectancy seemed brooding over us. A great many motor 'buses filled with policemen passed slowly, greeted with cries of, "Look out, 'ere's a copper!" Suddenly one heard it in every mouth that there had been a baton charge in Cable Street; we heard that a copper had had his head split open. A number of people running passed us, and we saw a handsome, wild-looking youth bleeding considerably from a laceration of the scalp. On the shops and walls and pavements were chalked up slogans here and there: "They shall not pass," and "Smash Fascism."

The Jews stood outside their shops in the back streets, looking somewhat darkly on the world, but on the whole there was remarkably little animosity. Most had come out, like ourselves, to see what the others were doing. But the excitement grew as the afternoon wore on and the people massed together. At the end of Commercial Road walking was fairly easy, but the great crowd had gathered at Aldgate, and there one could only sway with one's neighbours; it took twenty minutes to gain as many yards, and left one sweating with the labour. There was a good deal of singing, mostly of the Red Flag and the Song of the International Workers. Every now and then there was a staccato burst of "One, two, three, four, five; we want Mosley dead or alive." And the prevailing sentiment was that they would prefer him dead. In the meantime the police were working frenziedly to clear the road, half of which was up, of its eastbound traffic. For as far as one could see up and down the Whitechapel High Street from Aldgate there was a policeman to every yard, and every now and then they had to force back the crowd. Occasionally there were outbursts of hysteria, the crowd swaying madly and many almost trampled down, while the women screamed shrilly, "Let us out." As the police drove us back, those against the unboarded shop-fronts cried, "Windows, windows," and in some places people were forced through the glass. There was a thunder of hooves as the police crossed to a baton charge out of sight in a side street. We saw a little mild stone-throwing. A Union Jack received derisive cheers, and the crowd roared the Red Flag lustily. A 'bus driver passing on his 'bus was attacked, and for a moment nearly lost control. A woman next to us yelled, "Let 'im alone, 'e's only a worker like the rest of us," and a man on the other side gravely assured us that he was glad he had left his box of eggs at the station. All this time, owing to the efforts of the police, we had been kept, like the pebble on the glacier, "imperceptibly moving, but ever downwards," but finally we seemed to stop, and it was as though we were all in our places, with the show about to begin. The road had been cleared of traffic. There were one or two arrests; one man was carried away head downwards.

We had been watching the barrier opposite, which had been giving, and soon with an ominous crack it gave, and the crowd surged into the road, those in front being tripped up by the wood and many falling in the street with others on top of them. Reinforcements of police ran up at the double. Then another barrier gave, and our neighbour suggested that we should have ours down, or should we reserve it for pushing down on to the Blackshirts? The police cleared away the broken wood amid shouts of "I always thought you was a navvy," and "Nah wash yer 'ands!" One man called out, "Join the police force and see the next world."

But the crowd was quieter now, and had settled down to wait. We might almost have been on the rails at Epsom. We looked at the crowd and we looked at the police, but we felt that it would be impossible, against the will of that enormous mob, for any procession to get through. And we felt that in the heat of the moment spectators and the interested alike would join madly in the rush. Now and again the police kept us quiet by signs of activity as though the march were coming, and a great hush would descend after the initial burst of excited conversation. But still the procession did not come, and as we waited, instead of the sense of excited expectancy, the air grew heavy with

a sense of disappointment. We heard someone observe that it had been badly managed, that someone should have rung up Fischer (we surmised the spelling) and he could have spread the news that the procession had been diverted.

And soon we all knew that the afternoon was a failure, but we waited against hope. There were many speculations as to what had happened, and the words "Royal Mint Street" were in many mouths. We read afterwards that there had been a first-class row there. We also heard that there had been two hundred arrests on Tower Bridge, but that was not true. At last, bereft of hope, there were only the ambulances, the singing, and the Black Marias to beguile us. It took us fifteen minutes, even in the side streets, to make the few hundred yards from Aldgate to the Underground Station.

Obituary

JOHN ANTHONY CARLETON HUNTER, L.R.C.P., M.R.C.S., L.D.S.Eng.

THE death of Carleton Hunter on the 27th of September after a short illness and immediately following his 29th birthday has deeply grieved his colleagues and all those with whom he worked in the Dental Department, where he was a demonstrator of operative dental surgery.

Hunter was educated at Lindisfarne College and entered Guy's in October, 1925. His enthusiasm and extraordinarily good technical ability soon brought him to the forefront, so that just before qualifying as L.D.S., R.C.S.(Eng.), he won the Operative Dental Surgery Prize and obtained a certificate in the Newland Pedley Prize examination. He acted as assistant house surgeon to the late Mr. Malleson and to Mr. Bulleid, and subsequently became house surgeon to Mr. Pearce and Mr. Kelsey Fry. He was then appointed Demonstrator of Operative Dental Surgery. While acting as demonstrator he pursued the course for the L.R.C.P., M.R.C.S., in which he qualified in April, 1934. His skilful fingers and interest in operative dental surgery were such that he could not have failed to have made his mark.

His death just when all his efforts were to come to fruition appears tragical, but he was always willing to pass on his knowledge to others, and there are many Guy's men who have profited and will continue to do so by his assistance.

His interests were many, and his ability as a tennis and golf player were of no mean order.

Our deepest sympathies go out to Mr. and Mrs. A. H. Hunter in the loss of their only son.

A. R. T.

Guy's Hospital Chapel

THE Chapel will be found under the clock in the Front Court. Inside it is square in shape with galleries round three sides, and has often been described as a "drawing-room chapel of the Georgian period."

The stained glass windows commemorate William Hunt, the founder of the Medical Block, and others are recalled by brasses in various parts of the Chapel, while the mosaics and the oak panels are a memorial to those who have died in the medical service of the Hospital since 1867.

Facing the altar at the back of the Chapel is a monument to our founder, Thomas Guy, who is seen in the Court dress of the period tending a suffering man, with a replica of the facade of the Hospital in the background.

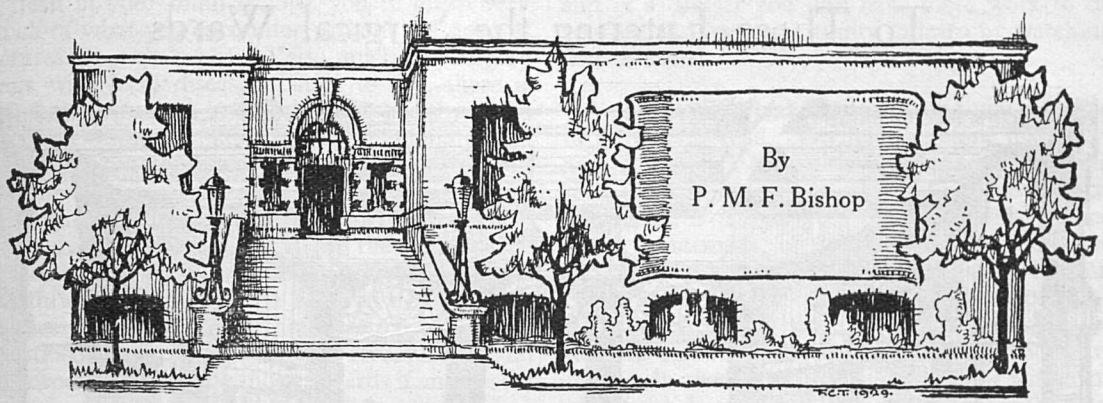
Through the little vestry on the right-hand side of the altar there is a small Chapel, where the Sacrament is reserved for the Communion of the sick. This quiet place is always open for private prayer.

The most important improvement that has been carried out in recent years is the restoration of the Crypt immediately beneath the Chapel, which for years had been a very dark and neglected place, but, owing to the generosity of the Sheppard Trust, in 1932 it was possible to make the Crypt a more worthy place to contain the Founder's tomb, and those of other benefactors. Thus a very beautiful and extensive Crypt has been made, and it is interesting to note that the work of restoration has been carried out with bricks from some old houses in the City, which were of the same period and were being pulled down at the time.

Among other tombs in the Crypt are those of William Hunt, Sir Astley Cooper and Charles Joye, the first Treasurer of the Hospital. The Crypt may be visited at any time, and the key may be obtained at the Front Lodge.

The Chapel and its services are open to all members of the Hospital and Schools. There are daily prayers morning and evening for the nursing staff in accordance with the Founder's wish and Holy Communion is celebrated at 7 a.m. and 8.45 a.m. on Sundays, and on week-days at 7 a.m. There is a morning service and address on Sundays at 11 a.m. A complete list of services will be found in the Chapel, and the Chaplain is always pleased to supply further information.

To Those Undertaking the Pre-Clinical Sciences



By
P. M. F. Bishop

THE first three years in the life of the medical student are generally supposed to be the dullest. This is because the subjects studied in the pre-clinical period are considered by many to be purely academic, and to have little bearing on the practical training of surgery, medicine or general practice.

Banish this idea completely from your mind when you enter the Medical School. It is true that you will have to work to a syllabus, and that the knowledge you acquire will be determined to a large extent by the requirements of those examinations which must be successfully negotiated before you can enter the wards, where at last you will be dealing with living and dying patients. But there is a reason for everything you will learn in your pre-clinical studies, and that reason is based fundamentally on the experiences of clinical medicine. The first action of many students when they pass the examinations in Anatomy and Physiology is to set fire to their notes and to try to get a decent secondhand price for their text-books. Then they feel they can start afresh on a new life, *the* life, the life of the wards. But though the Medical School is separated from the Medical and Surgical Wards by a spacious park of (sometimes) verdant green, they are much more intimately united as far as their activities are concerned.

Take, as an example, the three subjects organic chemistry, chemical physiology and clinical chemistry. These, you will find, are, in fact, so closely linked together that it has been found desirable for the Chemistry Department and the Chemical Physiology Laboratory to work very largely in conjunction with one another, while the methods taught in the course of chemical physiology are those which are used subsequently in the clinical chemistry which is practised in the wards.

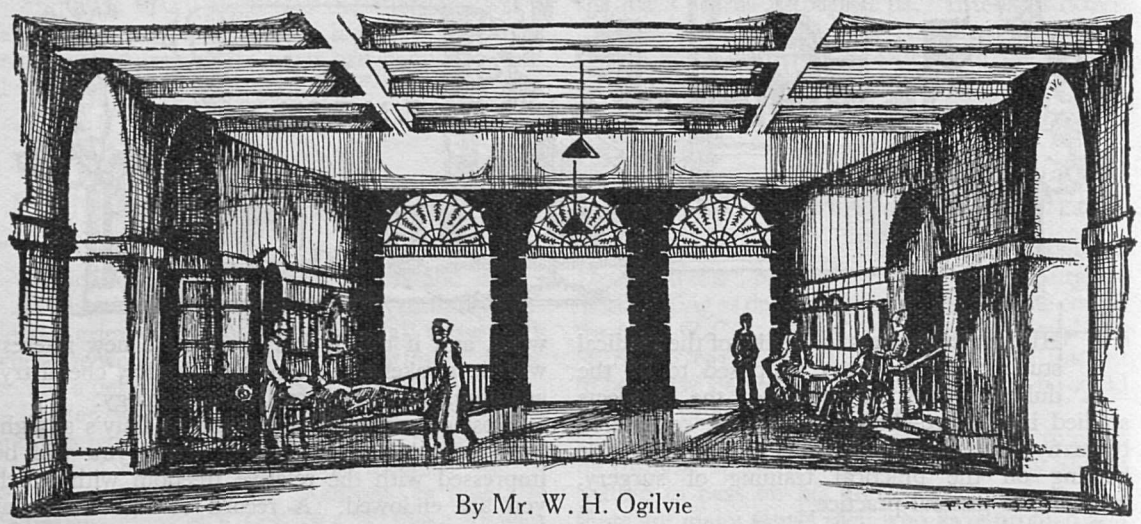
The pre-clinical sciences are designed as a careful preparation for the subsequent clinical work, and if this is fully realised a new interest will be awakened in biology, physics, chemistry, anatomy, physiology and pharmacology.

Most of you will have come to Guy's straight from school, and when you arrive you will be impressed with the relative freedom with which you are endowed. A record of attendances at lectures and practical classes is kept, mainly for the purpose of qualifying you for the examinations. You must realise, however, that these classes are designed to assist you in your work and not to compel you to work. Your life is in your own hands now. If you wish to take an intelligent interest in the manifold activities of the Medical School and of the life of the Hospital, you will be amply repaid. If you abuse the freedom which is given you by escaping from these activities, no one will miss you and no one will care very much. Medicine is a hard training for those who have no inherent interest in it, and the time to develop and cultivate that interest is as soon as you enter the Medical School.

Do not become one-sided. Remember that as a doctor you will come in contact with all kinds and classes of men and women, and you will be expected to take an intelligent part in conversation and to express a reasonable opinion on subjects not directly concerned with medicine. There is no one more boring and depressing than a doctor who has no outside interests, unless it is a group of doctors who can talk nothing but "shop" to each other.

Finally, pay particular attention to taking regular exercise. This not only brings you in contact with your fellow-students, but is essential from the point of view of your health. The Borough is not the most salubrious place to live or work in, and hospital life is strenuous. Try as far as possible to develop an immunity to disease while you are still in the Medical School, by keeping fit and in training.

To Those Entering the Surgical Wards



By Mr. W. H. Ogilvie

GUY'S HOSPITAL rightly enjoys a world-wide reputation as a medical school, which for generations has sent into all parts of the world doctors armed with practical knowledge and with the willingness and ability to take responsibility which a practical training implies. There are two special advantages of the teaching here—the great wealth of material which passes through the wards and Out-Patients' Department, and the responsibility which is given to every man from the very outset of his career. In each appointment he is not taught only, he is asked to carry out essential work for the Hospital and for his patients, and trusted to carry it out well. At the beginning and close of the clinical period stand two appointments which are peculiar to Guy's, Surgical Ward Clerk and Clinical, and both of them have this combination of responsibility and instruction.

It is on the surgical side of the Hospital that you who are now entering the wards will first encounter the practical side of the profession you have adopted as your life's work, and the human material with which that work is to be carried out. It is as well that it should be so, for here the issues are clearer. Later will come the study of prolonged and progressive disease, of those degenerations which follow upon misspent lives or have causes still unknown, of failures rich in scientific interest, but at present beyond your power to remedy. You will meet much that is depressing. But during your first three months in a surgical ward you will find yourself in one of the most cheerful places in the world, where hope is the keynote, and hard, active, useful work your daily occupation.

For you who have chosen aright, this time will stand out with ineffaceable clearness for the rest of your lives. What has gone before has not been without interest, but the interest was academic. It was like the long drilling on Salisbury Plain, which made the raw recruits into the material of Kitchener's Army. The crossing of the Channel took them from make-believe to real war, the actuality for which all the drill had been a preparation. The rehearsal was over, the curtain was up. And so, in a surgical appointment, you are suddenly in the midst of real life. You are confronted with accidents, sudden infections, grave calamities. In the main it may be said of the patients whom you will encounter, that they are healthy, normal, sane individuals, struck without warning by some sudden misfortune. You are present at this crisis in their lives, and it is in your power to help in fighting it. There is something to be done; and when it is done it is your privilege to see the rewards of victory—the quick recovery and the return of hope.

There is another advantage of starting your career on the surgical side. You are introduced

to disease in a comparatively simple form, and the knowledge of anatomy and physiology which is fresh in your mind enables you to grasp very much of what you encounter without the need of lectures or text-books. Very much of surgery deals with local disease, that is to say, there is one faulty structure in an otherwise healthy body. Given a thorough knowledge of anatomy and pathology the teachings of surgery become self evident. Surgical diagnosis is little more than the answering of two questions—what is the anatomical structure involved and what are the pathological processes that have caused the trouble? A man has thrust his arm through a window and a piece of glass has penetrated the forearm. The first question that faces you, "What structures would be encountered from without inwards if an incision were made in such a situation?" is one that you might reasonably be expected to answer in an anatomical paper. The second question, "Which of these structures has actually been divided?" means an investigation of the sensation of the different nerves, and the movements carried out by the muscles and tendons which lie in the path of the injury, and a search for pulsation in the arteries distal to the wound. The treatment is an exercise in anatomy and craftsmanship, very interesting, because the relations which have been memorised by force of will are not brought vividly before you under the bright light of the operating lamp. Your hardly-acquired knowledge makes you not only a sympathetic fellow-man, but one skilled to restore function and promise recovery to the patient.

During these three months you will work very hard, probably harder than you have ever done before, but it is all tremendous fun. Your primary duty to the Hospital is to keep a record of the cases under your care. This you will do as well as possible, both for your own sake and because on the accuracy and lucidity of your account will depend the value of the record in years to come should the same patient be readmitted or should a series of similar cases be investigated for statistical purposes. Besides clerking, however, you will be expected to help in every activity of the firm to which you are attached, from carrying patients to making tea in the dressers' room during "take-in." This appointment is your great opportunity for making yourself proficient. You should familiarise yourself with the somewhat elaborate routine of modern asepsis. You should take every opportunity to watch the dresser looking after your cases, for in the next appointment you will be a dresser yourself, and will be expected to know your work. It is the privilege of the beginner to ask questions, and this you should do in season and out of season. All knowledge which you acquire will stand you in good stead as a dresser, and as a dresser you will have more work to do yourself and less opportunity to learn by watching that of others.

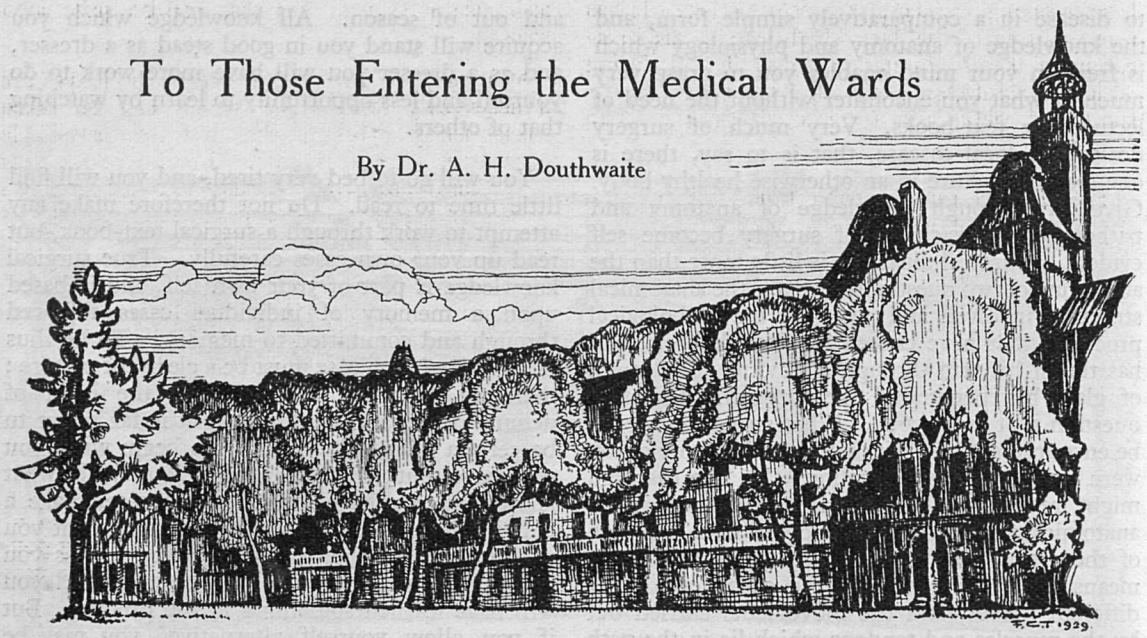
You will go to bed very tired, and you will find little time to read. Do not therefore make any attempt to work through a surgical text-book, but read up your own cases carefully. True surgical knowledge is part of your own self, and is based upon a memory of individual cases followed through and committed to memory. To be thus remembered each case must be a clear-cut picture; therefore begin at once to form the habit of definite decision. At this stage it is far better to be certain than to be right. To begin with, you will have but little knowledge, but with what knowledge you have examine each case, make a definite diagnosis, and decide what treatment you would adopt. Whether the outcome proves you right or wrong, you will remember it, and you will have learned something in the process. But if you allow yourself alternatives you may be tempted to the complacent reflection that one of them at least was right. Any man who could remember all his mistakes would be the wisest surgeon in England at the age of 60.

Be interested in everything in your patients and your fellows; no less in the nursing which completes the cure than in the operation which initiates it. It is an old saying that the wise doctor treats the patient as well as the disease. Enter into human relationships with your patients. They will call you doctor and will hang upon your words, and there is much you can do to make them well besides ministering to their surgical wants. In this side of your work alone you will learn much that will help you to success in after life. At Guy's we are particularly fortunate in our patients. There is no foreign quarter in the Borough, no shifting population. British dockers, navvies, carters, factory hands and their wives and children, come into our wards to be made well. They are fine people and proud of living round the best hospital in England. Their happiness and our good name are in your hands.

The Editor will, at all times, be glad to consider articles or sketches, provided that they are accompanied by the writer's name and address, not necessarily for publication. Authors who desire reprints of their papers should make their own arrangements with the Printers when they return their proofs. All contributions to be addressed to *The Editor*, who does not accept responsibility for the views expressed by contributors.

To Those Entering the Medical Wards

By Dr. A. H. Douthwaite



PARTICULARLY to those of you who come to us from other medical schools, the absence from Guy's of the formality, of the scholastic atmosphere, peculiar to so many hospitals will be very striking. No attempt is made to control your studies as by a schoolmaster. A high degree of freedom is allowed you in the knowledge that every opportunity and help is also offered to those who want to work. You are credited with the intelligence necessary to learn from textbooks, and, therefore, we do not give set courses of instruction by lecture in medicine. The aim at Guy's is to keep as much time free as possible for students to gain practical experience in the wards in order that they shall develop into self-reliant and efficient doctors. The wide capabilities of a Guy's man are recognised by the medical profession all over the world, and are directly attributable to the absence of " spoon-feeding " at this hospital.

It is not my purpose to preach to you of the necessity of hard work and devotion to Guy's. Presumably the majority of you have taken up medicine by inclination, in which case a few days of work amongst sick people will heighten your enthusiasm and provide you with such absorbing studies that no urge will be required.

To the few who are constitutionally tired, again advice will not be offered. No man has ever worked the harder in obedience to exhortation. It may even appear to you that you can drift through your life at Guy's with the minimum of effort. This is to an extent true, but these things are noticed, and have been known to lead to a pressing invitation to transfer allegiance to another hospital.

The abandonment of relatively exact sciences dealing with controllable substances and reactions for a life in the medical wards full of materials which, though superficially uniform in nature, actually differ completely by virtue of the unaccountable processes of human minds, not infrequently produces confusion combined with a fear that the earlier studies can be of little practical help. It is, however, precisely this human element which renders clinical medicine at once so fascinating and yet so difficult, for diagnosis usually rests mainly upon symptomatology, and to a less extent upon physical signs. Symptoms, however, have no fixed standard by which their severity can be assessed; their description is inevitably coloured by the personality of the patient.

The natural tendency to proceed to the examination of a patient without taking a careful history is, therefore, strenuously to be avoided. One should rather devote the greater part of one's time to listening to his story, and then, by careful questioning, sift the relevant from the irrelevant. In so doing, the true nature of the disease commonly reveals itself before ever a finger has been laid on the sufferer.

As a matter of course, a very careful physical overhaul should follow; nothing must be left to chance, which rarely favours its disciples. Nearly all diagnostic mistakes are referable to shoddy

history-taking, or incomplete examination. It was a recognition of this fact which lead to the institution of the Preliminary Clinical Period during which appointment you will have every opportunity of obtaining a thorough grounding in essentials.

Probably the most valuable time of the day for the acquirement of practical knowledge is that which follows the afternoon round. It is then that the house physician performs lumbar punctures, collects blood, taps chests and so forth. Naturally every opportunity should be seized of watching these procedures, which will, no doubt, be given to you to carry out from time to time. It is now, also, that special signs referred to in the teaching rounds can be re-examined, and thus fixed in the memory. Every evening, for a month at least, one pair of optic discs should be searched for with the ophthalmoscope. Once the knack has been acquired, and this usually comes quite suddenly after several days of disappointment, it will never be lost. It takes much longer, however, to obtain a clear mental picture of the normal as opposed to the diseased disc, and yet recognition of early change may be decisive in clinching a diagnosis, and possibly even in saving a life. It is for this reason that the daily study of retinæ should be made a fetish.

In addition to your work in the wards, you should attend post-mortem demonstrations whenever possible, and attempt constantly to correlate the morbid findings with the reported clinical signs. Nowhere are the many pitfalls which beset the path of the diagnostician so lucidly revealed as in the post-mortem room, where errors are ruthlessly exposed. In years to come you also will experience the epigastric discomfort which assails us on approaching the exposed remains of a case whose malady during life had seemed so simple of explanation.

As to reading, this should be limited to decsriptions of any disease which you may have witnessed on that day in the wards, whilst the rest of the evening should be devoted to pathology. A thorough grounding in this subject greatly simplifies the study of sick people and, by allowing of inductive reasoning, robs symptomatology of many of its difficulties.

Do not let your natural, or acquired, enthusiasm for work beguile you into the belief that by living near the Hospital you will absorb from the atmosphere a little extra learning. Far from it, you are much more likely to become a prey to disease induced by ill-ventilated, dark and dirty rooms. Eventually it may be necessary for you to take up residence at Guy's; but that will be quite soon enough.

Whereas in pre-clinical years holidays are unnecessarily long, those which can be taken subsequently without the loss of invaluable experience are very scanty. Three weeks a year is the minimum which should be taken, and this must be supplemented by frequent week-ends spent away from town and books.

It is equally important to keep a watchful eye on your mental well-being lest frequent contact with those of similar pursuits lead you into the deplorable condition of having no interest outside that of medicine. To avoid this try to live in diggings with a man in some other faculty, and never go on holiday with a fellow medical student, no matter how desirable a companion he may be.

Seize all opportunities of speaking in public. The Debating Society is an excellent starting point for the practice of an art which is difficult to most of us, but of the utmost value to all.

As a last word, I would draw your attention to the fact that at Guy's quite exceptional reliance will be placed upon you from the moment you take up the duties of ward clerk. Certain examinations are left entirely to you. The case reports are essentially your province. Failure to carry out the duties conscientiously may not only "let down" your house-physician and corresponding member of the visiting staff, but, also, even endanger the lives of patients for whom you share responsibility.

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To Dental Freshmen

By F. N. Doubleday, Esq.

WE are glad to welcome you to Guy's. You are joining schools which are famous throughout the world, and it is your part to live up to these traditions and to make them greater still. Probably none of the other professions offers such good opportunities as dentistry. The demand for technically skilled and mentally alert dental surgeons grows steadily. The patients are there to trust you and to be your faithful friends. Whether you seize these opportunities or not depends upon yourself. If you work hard and take advantage of the present time, the future will be prosperous and happy. Your years at Guy's should be among the best of your life, and you have youth and health, the constant opening out of interesting work and experience of life. The keynote to the full enjoyment of all this, as of all that is really best in life, is work. It is easy to float down the stream of hospital life, having a slack time now and regretting it afterwards. The way to make your time here a pleasant memory all through life is to work. Attend classes and lectures regularly, have a time-table for private study and read systematically, as the term goes on and the examinations come nearer give an hour or two a day to intensive drawing, making of diagrams, learning lists; also practise writing examination papers. These things first.

Francis Bacon, in his essay upon studies, says that they perfect Nature and are perfected by experience. He also gives this very sound advice: "Read not to contradict and confute, nor to believe and take for granted, nor to find talk and discourse, but to weigh and consider. Reading maketh a full man, conference a ready man, and writing an exact man."

There will remain time enough to take part in the general life of a Hospital famous for its sport and for its social life.

To Those Entering the Nursing Profession

EVERY two months some sixteen to twenty candidates enter the Preliminary Training School at Guy's in order to take the three months' course before entering the wards as probationers. Many people wonder what makes the modern girl take up nursing as a career. So many other avenues of work are now open to women, and so much criticism is constantly being levelled at the organisation of the profession in the daily papers and elsewhere. Yet in spite of this, the large hospitals such as Guy's still manage to attract large numbers of well-educated girls to train.

One hopes and believes that the majority of them come with a real sense of vocation, an urge to do some useful practical work in what is essentially a woman's sphere. If it is not in this spirit that they come, it augurs badly for the profession in the future. It was this spirit that led the splendid women in the last century to take up a very much harder and more exacting career than it is to-day. But we believe that the young girls who offer themselves to-day are made of equally good material.

Modern nursing dates back only fifty years or so, and is as yet hardly on its feet. Developments are taking place rapidly, and changes are best carried out by those who know and understand nursing conditions from within. There is a great need for educated women within the ranks, women possessed of initiative and energy to carry on the good work of developing the profession in the right direction.

One hopes that many Guy's nurses now in training may be able to keep their ideals intact and visualise a finer nursing service which they may help to bring into being. The years of training are difficult and sacrifices have to be made. Outside interests may suffer for the time being, owing to the exacting nature of the work, and it is too much to hope that in a three and a half year's training there should not be some "bad patches." But a large and busy hospital is a world of interest in itself for those whose heart lies in fitting themselves for the privilege and responsibility of caring for the sick.

Good wishes to you all for a very profitable and happy time at Guy's. And may the wards of the Hospital and the nursing profession be the richer for your having entered.

The Medical Curriculum

1. The Sciences

THE matriculated student will, in his first year, study Inorganic and Physical Chemistry, Physics and General Biology, and at the end of this period, provided he has worked diligently in the laboratories, and attended the Lectures and Revision classes regularly, should have no difficulty in passing the First Examination for Medical Degrees. In his second year he will study Organic Chemistry, together with Anatomy and Physiology, and at the end of the second winter, provided, as before, that he has worked steadily from the beginning, should have little difficulty in passing the First Part of the Second Examination for Medical Degrees. Anatomy, Physiology and Pharmacology are then taken as the Second Part of this Examination at the close of the third winter, prior to starting Clinical work in the wards.

From Medical and Dental students who are preparing for the Pre-Medical Examination only six months' work is required, but those entering without previous knowledge of Chemistry and Physics will find that time hardly sufficient, and are usually advised to take the full "year" of three terms, or nine months.

The importance of practical work cannot be too greatly emphasised, and lectures and books can but supplement work done in the laboratory. Guy's men have no excuse for neglecting laboratory work. Students are strongly urged to form early the habit of spending their spare hours, apart from those officially allotted, in one or other of the laboratories. Reading should be left for the evening. After a day in the laboratory, reading a good text-book will be found to give ample scope for thought. "Cramming," or the memorising of words and phrases, without a knowledge of the corresponding realities, is one of the worst intellectual habits a student can acquire, and in the long run invariably leads to failure.

CHEMISTRY AND PHYSICS

The student is often tempted to regard the study of Chemistry and Physics as one of very little use when once his preliminary examination is passed, but he will find in his study of the sciences of Physiology, Pharmacology and Pathology that a proper understanding of Physical and Organic Chemistry and Physics is invaluable and essential. That this is so is now fully recognised in the London University curriculum, which should be carefully studied by every London student.

BIOLOGY

Biology, like all the sciences, is properly studied in the laboratory, because things seen are better understood and remembered than things read or heard. Animals and plants are the true sources of a knowledge of biology, and more correct than the text-books written about them. Acquire, therefore, the laboratory habit and record carefully what you observe. Use your books as reminders of the things seen. Draw much. It saves you from the habit of verbal memorising. The drawing of a diagram is the best way of testing the accuracy of one's knowledge in a descriptive science like biology. In the laboratory are also demonstrators whose duty it is to clear up your difficulties. Equip yourself with the necessary instruments. A microscope is needed at once. Its purchase requires care and advice. Students have been known to saddle themselves with an instrument that gives them unsatisfactory results for a whole year, and gets condemned in a later microscopical course. This is poor economy, as the difference in price between a good and poor microscope is small. If you are buying a secondhand instrument, bring it to the laboratory for examination by the demonstrators before you complete the purchase.

ANATOMY

Too much emphasis cannot be laid on the importance of the careful dissection of the human body as an aid to the student in learning the subject of Human Anatomy. The man who has not dissected the whole body with average care can never hope to acquire familiarity with the subject, and experience shows that the man who neglects or "scamps" his dissections—and incidentally endeavours to make up the lost ground by dint of hard reading—has infinitely more difficulty in satisfying the examiners than the man who has completed his dissections conscientiously, even though he may have given much less time to his reading than he might have done. This is, it is true, the sordid examination point of view, but it is, nevertheless, not to be lost sight of.

It is unfortunate that limitations of time and other cogent reasons demand that the student should begin his dissections at the same time as he receives the introductory lectures on anatomy, an arrangement which increases his initial difficulties in the dissecting room. At the very outset

he will find himself faced with a mass of facts in which there seems to be neither rhyme nor reason. After a little, however, the fog by which he has been enveloped will begin to lift, and, gradually, he will come to appreciate that what at first appeared to be a chaotic collection of structures, endowed with unintelligible and apparently meaningless names, resolves itself into a reasonable and orderly arrangement of structures, whose names are, for the most part, peculiarly appropriate. There is a danger lest, at this stage, when he is beginning to see daylight, he should occupy too much of his time with the names which must necessarily be given to individual structures. The names themselves have, of course, no intrinsic value, and are merely used to facilitate description. Attention should be devoted instead to discovering the functions of the structures displayed by dissection and to observing the relationship which exists between function and structure. Throughout his whole period in the dissecting-room the student should seek to correlate his Anatomy and his Physiology. If he does so he will find that he is simplifying the task in hand, for the one subject will help him with the other.

It is important, too, to appreciate that while the cadaver is being dissected the topographical information acquired by this means can be applied to the living subject. Most of the superficial structures and many of the deeper ones can be recognised either by the eye or by the hand in the living body, and the student should learn to identify on his own person, so far as is practicable, the various bony points, muscles, tendons, etc., which can be seen or felt. He should also endeavour to visualise on himself the position of the deeper structures which present no surface landmarks. After all, when he enters the wards, and in after life, he will have to deal for the most part with living patients, and, apart from actual surgical operations, he will be compelled to visualise on their bodies the position of the structures which he has dissected in the cadaver. The correlation between the dissected subject and the living body is difficult only when it is regarded as a separate section of human anatomy to be learnt from books, after all the dissections have been completed and in the last few days before the professional examination. The student, therefore, must constantly strive to form mental pictures of the regions as he dissects them, and to project these pictures on to his own body.

Once he has obtained a reasonable knowledge of the general anatomy of the body, the student who possesses any imagination will find Human Embryology a fascinating subject. Here he will find the explanation of much that may have hitherto appeared to be inexplicable, and here, too, he will see modifications of function and structure proceeding side by side.

The Guy's student is fortunate in having a modern and well-equipped department in which to work. In addition to the material which is always available in the dissecting-room and in the specimen rooms, the famous Towne collection of wax models, which is housed in the Anatomical bay of the Gordon Museum, can and ought to be utilised freely for study and for reference.

PHYSIOLOGY

Before the student can hope to appreciate the abnormalities and disturbances of function which form the material for his clinical studies, a sound knowledge of the normal function of the body is essential. Physiology is the science which supplies this basic knowledge and the student who obtains a firm grounding in this subject reaps his reward.

Physiology is a science which is entirely based upon the triad of experiment, observation and deduction. For this reason its study is of inestimable value for the training of the mind in the powers of logical reasoning. The major part of the course consists of experimental work in which the student is able to see for himself and draw his own conclusions; this makes the subject extremely interesting, and relieves the student from a heavy burden of hard facts which can only be retained by a feat of memory.

The practical classes are divided into three groups. In the experimental class the student records and measures the activities of living tissue from frog and mammal. In the chemical class he studies the composition and reactions of biological material. In the human class he makes observations upon the human subject. In all classes stress is laid on those aspects of his work which have a direct bearing on his future studies, so that he should carry into the wards a knowledge of the more important biological processes.

As a guide to the student in his studies a course of lectures is given each year; this serves, not so much as a source of actual information, as a means of correlating and balancing the student's knowledge. Observations, which may be quite dissociated in the student's mind, can be brought together—woven into a complete whole. In addition, clinical demonstrations are given to the senior students each week, and these serve as an introduction to the application of physiological principles in the study of the disturbances associated with disease.

The student is advised to begin his reading of Physiology with an introductory book such as

Winton and Bayliss's " Human Physiology," The choice of text-books is large, but Halliburton's " Handbook of Physiology " or Starling's " Principles of Human Physiology " should satisfy his needs. There is a small library in the Physiological Department, and students may borrow works on special subjects.

PHARMACOLOGY

Pharmacology is the study of the action of medicinal substances on the normal body. It is the basis of all methods of chemical treatment and forms an important natural scientific link between physiology and practical medicine.

A preliminary knowledge of physiology is essential. The student is introduced to the subject before his clinical period, but cannot realise its full significance until he has come face to face with the actual problems of therapeutics in the wards. A short revisional study at this stage of his curriculum is strongly recommended.

A six months' course of bi-weekly lectures and demonstrations is given during the two winter sessions, and should be attended by all students. Revision classes are provided for each of the four examinations of the Conjoint Board yearly. Candidates for the B.M. (Oxford) must also attend the practical classes which begin in January.

Lectures.—On Mondays, 4 p.m., Fridays, 1.15 p.m., in Physiology Theatre, starting Friday, October 7th.

Demonstrations.—Details to be announced later. In Pharmacology Laboratory. Dates to be announced during lectures.

Revision Classes (Conjoint).—To be held in November in Pharmacology Laboratory. Dates to be announced later.

Text-books.—Dixon's " Manual of Pharmacology " is the most suitable text-book for general use. Gunn's " Introduction to Pharmacology and Therapeutics " summarises the subject in a readable way and is invaluable for revision purposes. The practical classes are based on Sollmann and Hanzlik's " Experimental Pharmacology," but Dixon's " Practical Pharmacology " is sufficient as a short laboratory guide.

A comprehensive Departmental Library is available for those more deeply interested in the subject.

2. Pre-Clinical Period

THE extension by the Examining Bodies of the student's curriculum of study has allowed the addition of an extra period of three months' preliminary instruction before the student actually embarks on his duties in the wards

It has long been felt that the time allotted to the study of Medicine, in the limited sense, has of late years been encroached upon and curtailed by his duties in the Surgical Wards and the Special Departments, and the opportunity was gladly seized of redressing the balance by giving him extra tuition in medical subjects.

The object of the Pre-Clinical Period is to instruct the student in the routine methods of examination of patients and in the detection and interpretation of physical signs, so that on his entry into the Medical Wards he will be able immediately to derive full benefit from the teaching of the Registrars and Physicians without the laborious explanations and tedious insistence on elementary points necessary before the introduction of the scheme.

In addition to this instruction, which he receives from the Clinical Tutor in charge of the course, the student gets a course of Clinical Chemistry from Dr. Ryffel and Dr. Waterfield, Elementary Pathology, Minor Surgery and Bandaging from the Surgical Registrars, and instruction in the methods of examining the eyes, ears, nose, etc., from the heads of the departments concerned.

3. The Wards

SURGICAL WARDS

THE appointment of surgical ward clerk is the first of the appointments held by the student during his Clinical training. In many ways it is the best of all the appointments, as most of the teaching, both by the Surgeon and the Registrar, is for his special benefit. Furthermore, a reputation for keenness and ability earned in those early days will follow him and help him throughout the rest of his time at the hospital. Each clerk is attached to one of the surgical units for three months, and it is his duty to record the history and progress of the cases allotted to him.

The wards are open to the student at 10 o'clock, and he should have written up the history of the case and, as far as possible, have examined the patient before the Registrar of the unit begins his round at 10.30, when each case is discussed and the report of the clerk confirmed or amplified. The student during this period will do well to

confine most of his attention to the detection of the physical signs, and should procure from the Medical School Office a copy of the red book entitled *Instructions in Case-Taking, Surgical*, which he will find a very good guide to sound and systematic examination of the patients.

While he is acting as ward clerk the student attends a course in Elementary Pathology and Pharmacology, and at the same time has unrivalled opportunities of seeing dressings and operations, more especially during his "take-in" week. There will be much hard work, and many late hours, but there will be also incalculable compensation in seeing and learning the practical points that will stand him in good stead. He is doing his own work of ward clerk, but must remember that he is learning also to be a dresser.

As a dresser the student spends two periods of three months. While the surgical work is very dependent on the dresser for its smooth efficiency and good results, the dresser must realise that he himself is very dependent upon his work, for it is during these six months that he lays the foundation of his surgical knowledge and sound after-care. Someone has said that every surgeon should be his own dresser, so that the dresser must appreciate the responsibilities that he assumes in thus deputising for his surgeon.

We have said very little about the actual tasks of the dresser; he should read the "standing orders" relative to his appointment, and from then on everything depends upon himself. He has been given a valuable appointment and one difficult to do well, but one that repays hard work almost more than any other appointment he can hold.

MEDICAL WARDS

To each medical ward clerk is allotted a certain number of beds, and he is expected to examine and write full reports on all patients who are admitted into these. Occasionally, it so happens that a patient is too ill to be examined except by the House-Physician and Physician, or that a case dies before the ward clerk has had an opportunity of seeing it. Under these circumstances he should obtain the history and an account of the symptoms, physical signs and progress of the case from the House-Physician, and should base his report on these data. It cannot be too strongly insisted that a report, however brief, must be written on every case, and it is of the greatest importance that *the diagnosis and remarks made by the Physician should be entered at once into the report*. Moreover, any errors detected by the Physician or Registrar in the original report should be immediately corrected. In the event of a patient dying, the ward clerk must obtain the abstract of the post-mortem findings and carefully enter it up, and it need hardly be said that all clerks should make every effort to see the post-mortem examination of any case they may have seen during life.

The medical wards are open to clerks from 10 till 12 noon, and from 1.30 till 6.30 in the evening. The Registrars begin their rounds at 10.30, and by that time a clerk should at least have full notes of the history of any new patient who may have been admitted into one of his beds, and he should have a full report in readiness for the Physician in the afternoon. Ward clerks should realise that they are expected to know the details not only of their own cases, but of every patient under their Physician. It is no excuse to plead ignorance because "this is not my case." If a clerk will only take the trouble to make himself conversant with each case in this way he will find at the end of his six months that an enormous amount of clinical material has passed through his hands, and he will probably have acquired enough knowledge of medicine to enable him to pass the Conjoint Final with but little additional reading. But so many men waste their time through sheer laziness in the medical wards, never realising that they are throwing away experience which would prove invaluable to them later on.

Again, the curriculum provides but six months for the study of pure medicine, whereas nine months are allowed for the pursuit of surgical appointments. Further, during their period of medical clerkship men are apt to take more time than is justified for the study of Pathology and Bacteriology, which they have neglected whilst in the Surgical Wards.

An hour spent in the wards after tea three or four times a week will give opportunities not only for going over cases and writing up reports, but also for seeing the House-Physician tap chests and abdomens, etc. The treatment, too, which each case is receiving, may well be studied at this time.

As regards reading, the best method is to study the text-book account of each disease as one comes across it in the wards or in discussion, and afterwards to compare, if possible, the text-book description with the symptoms and signs presented by the patients. At the same time the most important medical journals should be read regularly, for by this means only can the student keep himself in touch with modern work. The *B.M.J.* and the *Lancet*, the *Quarterly Journal of Medicine*, as well as the *Journal of the American Medical Association*, are especially recommended.

Books that may be recommended are the following: The well-known text-book by Osler, Dr.

Poulton's revised edition of Taylor, Dr. Conybeare's *Text-book of Medicine*, and *Physical Diagnosis* by Cabot. For second three months ward clerks, the most important monographs in Allbutt's or Osler's *System of Medicine* will prove valuable and interesting reading. For laboratory work Hutchinson and Rainey's *Clinical Methods*, or Dr. French's book will be useful.

OBSTETRIC & GYNÆCOLOGICAL WARDS

After finishing appointments in the Medical and Surgical wards the student is posted to the Obstetric Department for six months. During the latter half of this time he is also attached to the Physician for the Diseases of Children. The Obstetric Dresser is responsible for case-taking in the wards and at Out-Patients, assists at operations, and during one month acts as Extern in the Maternity Charity. The Department has 26 beds reserved for gynæcological cases and 21 for the reception of cases presenting complications in pregnancy, labour and the puerperium and normal labours.

As an intervening link between the Obstetric and Children's Departments is the Salomons Centre, in which the health of mothers and infants is fostered by the practice of preventive medicine.

With this wealth of clinical material it should be possible for every student to obtain a sound knowledge of methods of diagnosis and treatment founded on no small experience. It is, however, recognised by teachers of Gynæcology and Obstetrics that this desideratum is not always attained. It is undoubtedly true that many a young practitioner has to admit a regrettable ignorance of the ailments which afflict his female patients and of the proper management of the pregnant, parturient and lactating woman. And these subjects form the foundation upon which a successful family practice is built. Responsibility for this sad state of affairs hardly rests with the student, but he will do well if he starts his clinical work with the firm determination to avoid the pitfalls that beset his feet. He must realise that practical experience in diseases peculiar to women cannot be acquired in the space of the three months which he will spend in Queen Ward. As he passes from one appointment to another he must resist the tendency to develop the compartmental mind and must endeavour tc cultivate a wide outlook on medicine as a whole.

The study of the physiology and pathology of the functions of woman should be begun at the outset and continued throughout the period of clinical training. The man starting as Surgical Ward Clerk should include among his initial purchases a text-book on Gynæcology, for purposes of reference, and should make a point of attending the lectures of the Obstetric Surgeons. He should also avoid no opportunity of acquiring the " tactus eruditus " so essential to the accurate diagnosis of pelvic disorders ; the inherent impossibility of permitting a class of students to examine women patients one after the other renders it imperative that this experience be gained over a considerable period of time.

The study of midwifery he may well leave until he becomes an Obstetric Dresser ; the art of the accoucheur cannot be learnt from books.

4. Pathology and Bacteriology

PATHOLOGY

WHEN the student has passed the Second Conjoint or M.B. Examination, he is halfway through his medical curriculum, and he should have gained a working knowledge of the functions of the body in health. This knowledge is an essential preliminary to the study of the most important of the medical sciences, viz., Pathology, or the study of the functions of the body in disease. Throughout his life the student, if he continues to study and practise medicine, must ever keep pathology in the foreground. It is desirable, therefore, that the study of pathology be begun as soon as possible and continued throughout a medical career.

The subject is an exceedingly large one, and it is customary to divide it into several sections :—

1. General and Special Pathology ;
2. Morbid Anatomy ;
3. Morbid Histology ;
4. Bacteriology ;
5. Chemical Pathology.

Due attention must be paid to each of these branches in proportion to their importance relative to one another and to clinical medicine and surgery as a whole.

During the pre-clinical period the student must attend classes and demonstrations in elementary pathology, bacteriology and chemical pathology.

During the Autumn, Spring and Summer Terms, systematic lectures and demonstrations in pathology and bacteriology are given. Three lectures and three practical classes are held weekly, the former at 9 a.m. and the latter at 12 noon.

Regular attendance at these classes is imperative, and the attractions of the wards and of clinical work should on no account be allowed to interfere with laboratory studies.

While medical ward clerks, during their tenure of office, should attend classes on chemical pathology, it is essential that throughout all ward appointments no opportunity should be missed of continuing the study of pathology.

Apart from set lectures and classes, students and house-officers are cordially invited to make use of the resources and facilities provided by the laboratories in order to add to their knowledge of a subject that lies at the root of all successful clinical work.

Every man should, as far as is practicable, follow out the pathology of each and every one of his cases.

Is a bacteriological investigation to be made? He should follow it out as far as possible. Is a portion of tissue removed for microscopical examination? He should see and examine the section. Is a chemical examination demanded? He should endeavour to see the analysis carried out. He should never miss an autopsy on any one of his cases, and should make a point of keeping a special note-book in which he can enter the clinical history and progress of a case, the post-mortem findings if the case comes to autopsy, and the result of the histological examination together with a general review of the case in the light of that further evidence.

Set hours cannot be given for these lines of study; they must be fitted in as time and opportunity permit. In short, efforts should be made to see as much practical work and as many demonstrations in pathology as can be arranged. There are few days when no pathology can be learned. Post-mortems are held every day at 1.30 p.m., except on Wednesdays and Saturdays, when the hours are 12.30 p.m. and 11.30 a m. respectively. Attendance at these will amply repay the time expended.

Informal classes in Pathology are held twice weekly during the October and May terms. These, though primarily intended for M.B. students, are suitable for, and should be attended by, those sitting for Part I of the M.B.Cantab. and the Final M.B. of Oxford or London University.

During the later clinical appointments certain students may hold a few pathological posts, such as Student Demonstrator in Pathology or Student Assistant in the Bacteriological Department. One or more of these may be held in turn, and they prove exceedingly valuable from the learners' point of view

There are many books which might be recommended, and what suits one student may not prove attractive to another. The following, however, will prove adequate for all the students' purposes: in Pathology, Boyd's Textbooks or MacCallum's or Muir's Manuals; in Morbid Histology, Donaldson's Handbook; in Clinical Pathology, Panton and Marrack; and for Bacteriology either Muir and Ritchie's Manual, Whitby's "Medical Bacteriology," or Bigger's Handbook.

BACTERIOLOGY

Bacteriology, although for a time regarded by the clinician as affording information of merely academic interest, has now made a most profound impression upon the theory and practice of both medicine and surgery, and by providing specific treatment for many microbial infections has emphasised the necessity and stimulated the demand for exact diagnosis, and it is towards this direction that the student's interest is guided by the class in Practical Bacteriology.

Particular attention is devoted from the beginning to the technique of various investigations undertaken in connection with ward work. Thus the student himself examines sputum, pus and morbid exudates by various methods to demonstrate the associated bacteria. He is instructed in staining methods and the practical work of culture making, and is, moreover, encouraged to repeat for himself during the intervals between successive classes any observations and experiments previously carried out, in order to equip him for the performance in general practice of those more obvious methods of bacteriological diagnosis which experience has shown are both reliable and valuable. Demonstrations are also given upon the life history of the most important of the organisms which are pathogenic to the human race, and by the study of "pure cultures" an attempt is made to impress the chief characteristics of each upon the mind of the student, whilst the changes such organisms undergo or produce when they gain entrance to the human tissues are carefully emphasised.

Throughout the course considerable stress is laid on the further applications of bacteriology to treatment, including the use of various remedial agents such as sera and vaccines, which have been elaborated in the bacteriological laboratory for the treatment of disease, together with those facts and theories relating to natural and acquired immunity upon which bacteriological therapy is based.

5. The Special Departments

THE CHILDREN'S DEPARTMENT

In-Patient Accommodation.—Dr. Cameron has under his care 13 cots in the Children's Ward. On two days in the week, at present on Tuesdays and Thursdays at 2 p.m., Dr. Cameron goes round the ward and gives clinical instruction. Afternoon rounds are also conducted by Dr. Ellis.

Out-Patient Department.—Children under 10 years of age are seen in the Children's Department at Out-Patients on Mondays, Wednesdays and Fridays from 9.30 until 1 o'clock. Dr. Cameron attends on Mondays at 10 a.m., and Dr. Ellis on Wednesdays and Fridays at 10 a.m., when clinical instruction is given.

The Salomons Centre is for the care of the mothers and children of the Midwifery Charity; attendances at the Centre are made by dressers in the Obstetric Department.

OTO-RHINO-LARYNGOLOGICAL DEPARTMENT

This Department is organised on the unit system. There are two units, one under the care of Mr. Mollison, the other of Mr. Layton, and Mr. Cann is the Assistant Surgeon. Patients are seen in the Out-Patient Department, admitted when necessary to the special wards, Dorcas and Christopher, and returned to the Out-Patient Department. This arrangement allows members of each unit to follow up the cases. Mr. Mollison's firm sees out-patients on Tuesdays and Fridays at 11.30 a.m., Mr. Layton's on Mondays at 9 a.m., and Thursdays at 11.30 a.m.

Dressers are appointed to the respective firms, and have every opportunity of becoming expert in the technique of examination of the ear, nose and throat, and of gaining experience in diagnosis and treatment. Large numbers of school children are seen. Minor operations are performed in the Out-Patient Department; these include, amongst others, operation for the removal of nasal and aural polypi, and of tonsils and adenoids, and for the lavage of the maxillary antrum; these operations are performed under the supervision of the Surgeon or the Clinical Assistant

Twenty-seven beds and six cots are now allotted to the Department, and each firm operates twice a week. Mr. Mollison and Mr. Layton " take-in " during alternate weeks, and emergencies are admitted under the care of the firm on duty.

THE OPHTHALMIC DEPARTMENT

The Ophthalmic Department of the Hospital is in charge of the two Ophthalmic Surgeons, Mr. Morgan and Mr. Law. They are helped by three Assistants, one House Surgeon and Dressers. The Dressers are appointed four times a year for a period of three months, and assist the Surgeons at Out-Patients and at operations, and are responsible for the recording of the cases both in the wards and at Out-Patients. The Ophthalmic Department is an open field for any student to explore as far as he is willing and able, the amount of clinical work being sufficiently great for him to see all the more ordinary and common diseases of the eye in the space of three months.

The student will soon find that he is quite unable to form any opinion of his own on an ophthalmic case until he has mastered the use of the ophthalmoscope and can readily and accurately decide what is the refraction of the eye, and if the " fundus oculi " is healthy and normal. The theory of retinoscopy can be taught and is simple; the practice, however, requires constant application by the student before he can hope to obtain any sort of facility in it. The difficulties are mainly initial ones, and any time and trouble expended in mastering them will well repay any man in after life when he has qualified and is in practice.

MEDICO-NEUROLOGICAL CLINIC

Advanced Ward Teaching for Post-Graduates and Students is given on Tuesdays at 2.15 p.m.; Drs. Hurst, Marshall, Symonds and Gillespie meet in Mary Ward for the combined round at which a discussion is held on a series of cases.

NEUROLOGICAL DEPARTMENT

This Department is under the direction of Dr. C. P. Symonds and now provides facilities for a full three months clerkship, which offers excellent opportunities to those who desire practical experience in one of the most difficult branches of medicine. Tuesday and Friday mornings are devoted to Out-Patient work; Dr. Symonds holds a teaching round on Thursday mornings in the Eye Ward, while the Registrar goes round on Mondays.

DEPARTMENT OF PSYCHOLOGICAL MEDICINE

This is now separated from the Neurological Department and provides a full three months course of Clinical tuition. In addition to Lectures and Clinical Demonstrations held at a mental hospital during the summer term, Dr. R. D. Gillespie is also responsible for a series of addresses on Normal Psychology during the spring session. Out-patients are seen on Tuesday and Friday mornings.

THE DERMATOLOGICAL DEPARTMENT

Out-Patient Days.—Dr. Barber: Mondays, New Cases, 9 a.m. Old Cases, 9.30 a.m.

Dr. Forman: Wednesdays, New Cases, 9 a.m

Dr. Barber: Thursdays, New Cases, 9 a.m.; Old Cases, 9.30 a.m.

Wards.—There are three male and three female beds in the Eye Wards for Dermatological cases requiring careful supervision or treatment in bed.

Instruction in the diagnosis and treatment of diseases of the skin is given in the Out-Patient Department, and clinical demonstrations on selected cases are held from time to time.

THE GENITO-URINARY AND ORTHOPÆDIC DEPARTMENTS

These two appointments are now taken separately, but have a common House Surgeon. Students acting as Dressers in the Genito-Urinary Department have excellent opportunities of acquiring knowledge which will be useful to them in actual practice and examinations.

The Genito-Urinary Department is under the care of Mr. Doherty, who sees patients on Tuesdays and Fridays at 1.30. A large variety of cases can be seen. The in-patient beds are for the most part devoted to patients requiring severe operations.

There are 7 male in-patient beds in Christopher, 2 female beds in Queen, and 1 cot in Evelyn.

Students should realise that their attendance at this Out-Patient Department is very necessary, as is evidenced by the very advanced state of disease in which some patients arrive for examination.

The Orthopædic Department comprises a large out-patient clinic and a number of beds devoted to patients suffering from deformity. Out-patients are seen on Monday and Thursday afternoons, and Minor Operations performed on Wednesday afternoon, and in the Out-Patient Department the student will meet with every variety of deformity, congenital and acquired. Considerable facilities are afforded for experience in the relief and cure of all chronic diseases of bones, joints, muscles, etc. Instruction in the principles and most modern practice in the use of appliances, plaster technique, and the more useful forms of Physio-Therapy is given by Mr. Lambrinudi and Mr. Stamm, the Orthopædic Surgeons, and the Registrar. Numerous operations of a minor nature are done, such as manipulations for stiff and painful joints, correction of misshapen and rickety limbs, correction of scoliosis and immobilisation of tuberculous joints.

The in-patient beds are devoted to the most serious operative cases, such as extensive tendon transplantations, correction of malunited fractures, bone-grafting, the making of new joints, etc. Guy's is a pioneer hospital in possessing an excellent workshop for the manufacture of every form of splint and appliance.

It is in the Orthopædic Department that the principles underlying the mechanical disabilities of the limbs and spine are emphasised and their explanation made clear, and the experience to be gained here is invaluable. The great utility of orthopædic surgery has become evident to very many during the war.

THE TUBERCULOSIS DEPARTMENT

The Tuberculosis Department is a reference Department for out-patients suffering from diseases of the chest. Patients attend on two days a week, Thursday afternoons and Monday evenings. For suitable cases arrangements are made for admission to sanatoria. The patients return to the Out-Patient Department after leaving the sanatorium. The Department provides extensive opportunities for studying methods of investigating early and doubtful cases of pulmonary tuberculosis, also for observing special forms of treatment such as artificial pneumo-thorax. A special appointment is now connected with this Department.

THE DEPARTMENT FOR VENEREAL DISEASES

This Department is open from 9 a.m. to 8 p.m. on all week-days, and from 10 to 12 noon on Bank Holidays.

Treatment is carried out for all venereal diseases in women, men and children, and patients may be referred from other departments at any of these times.

Students may attend the male section any evening from 5 p.m. to 7 p.m., and Dressers in the Gynæcological Department may attend the female section on Mondays from 5 p.m. to 7 p.m. or Wednesdays from 2 p.m. to 5 p.m.

Demonstrations are held on Thursdays at 5 p.m. in the Demonstration Theatre in this Department.

Dressers are appointed to the Department every three months.

PRACTICAL PHARMACY AND DISPENSING

One of the many important things all medical students must know is how to write a prescription. It may even be necessary for the majority, when qualified, to be able to dispense the same. All students, therefore, would be well advised to acquire as much knowledge of the subject as they can.

The student is taught, practically, how to dispense the different medicinal preparations; he learns to write prescriptions, due regard being paid to doses and incompatibilities.

The course is conducted by the Hospital Pharmacist.

THE MASSAGE DEPARTMENT

Massage as a training for women has been taught in England since 1888. Guy's Hospital opened as a Training School for non-resident women in 1913, and is the largest school in the British Isles.

The training extends over a period of 21 months and covers a very comprehensive course in Anatomy, Physiology, Theory of Movement, and Applied Treatments by Massage and Medical Gymnastics for most Surgical and Medical conditions.

Applicants desirous of entering for the course must produce satisfactory evidence as to conduct, character and education, with a minimum age of 18½ years. There are two terms of entry each year, one in March and one in September.

On completion of the training the students enter for an examination arranged by the Chartered Society of Massage and Medical Gymnastics. This body has a membership of over 8,000 on its register. It provides for a Register which is available to the medical profession, and ensures an adequate supply of qualified workers.

The Department.—Patients are given daily treatments during the hours of 1.45 and 4.30 p.m. on Monday, Tuesday, Thursday and Friday, and 9 a.m. and 12 mid-day on Wednesday and Saturday. It is during these hours that visits by the Medical Staff and students are invited. The after-care of those patients who are given treatment is of interest to all medical men. And during the years students are in the wards much can be learnt as to the methods of finally restoring normal function in their patients.

Students interested in this branch of the profession should see the Sister-in-Charge and arrange to see their patients treated.

ELECTRICAL AND ACTINO-THERAPEUTIC DEPARTMENT

The treatments carried out in this Department include the following: diathermy, high frequency, the application of the constant, faradic and sinusoidal currents, radiant heat, and static electricity, treatment by the Finsen and mercury vapour lamps and radiotherapy.

A special Department has, for some time, been opened for artificial sunlight treatment.

A large number of cases are treated in the Department: Chronic joint conditions, nerve injuries, wasted muscles, skin diseases such as ringworm, psoriasis, eczema and rodent ulcer. There are also a large number of cases of malignant disease undergoing treatment with X-rays and radium.

6. Books

ADVICE on this matter is extremely difficult to give, for individual needs are almost as varied as the length of individual pockets, and the adornment of a virgin bookshelf is bound to depend on both these factors. Except in the case of certain essentials for routine work, such as the dissecting room manuals, it is perhaps better to postpone the inevitable visit to the bookseller and first to consult the various tutors and demonstrators in the subjects concerned. They will be more than willing to extend any suggestions made under various headings in this issue of the *Gazette*, and their experience will enable them to advise that blend of old and new best fitted to the individual case.

The rapid advance in medical knowledge unfortunately renders the second-hand book almost worthless except in the case of Anatomy, where the advances, though many and real, are not apt to be so revolutionary as in Physiology and Medicine itself. A Physiological text-book probably becomes out of date in less than a year, a text-book of Medicine in two or three years at least, so that in these subjects at any rate recent editions are essential.

All that is most distinctive in current Guy's teaching is to be found in the *Guy's Hospital Reports*, which contains articles written for the most part by members of the Hospital Staff. The unqualified man has the special privilege of

purchase at a much reduced price, an advantage that he will be wise not to neglect.

A great number of publishers are responsible for medical books, and a just estimation of the rival claims for their various productions is quite beyond the scope of this article. Mr. Humphrey Milford at the Oxford University Press offers a wide range of medical works of uniform excellence in subject matter, binding and printing. Messrs. J. & A. Churchill publish Taylor's "Medicine," edited by Dr. Poulton, Romanis and Mitchiner, the *Recent Advances Series*, and many other well-known works. E. & S. Livingstone, of Edinburgh, present books containing the valuable teaching that emanates from both sides of the Tweed. Many splendid books are published by Cassell & Co., Ltd., Edward Arnold & Co., Ltd., and John Wright & Sons, Ltd., while H. K. Lewis & Co., of Gower Street, sponsors a number of books in nearly every branch of medicine. Messrs. Lewis also run an excellent medical circulating library, familiar to generations of medical students, which should prove invaluable to the man who wishes to dip briefly into all the latest books. This is assisted by reference to their catalogues. Messrs. Henry Kimpton, of Holborn, and Foyle, of Charing Cross Road, specialise in second-hand books.

Mr. H. H. Grattan, in the Borough High Street, is able to supply most of the books in common demand over the counter; any others he can be relied upon to obtain as quickly as possible.

The Dental Curriculum

THE Dental Student is supplied at the Medical School Office with the Prospectus, Standing Orders, Lists of Instruments, Calendar and Clubs' Union Book.

These pamphlets should be carefully read in order that acquaintance may be made with the general arrangements of the School and the scope of the work upon which the student will become engaged.

Notices regarding the time and place of Lectures are to be found posted up by the main entrance and at the head of the Main Staircase in the Dental Department, and on the notice board outside the Medical School Office.

Instruments having been purchased at a dental depot, the student should satisfy himself that he has been supplied with all of those described in the Hospital list, and have them inspected by his demonstrator.

It is inadvisable to purchase instruments before they are needed. Instruments for prosthetic work are required for the B.D.S. course at the beginning of the second year, and for the L.D.S. course at the beginning of the first year. Clinical instruments are required for the B.D.S. course at the beginning of the fifth year, and for the L.D.S. course at the beginning of the third year.

Among the various depots at which instruments may be purchased are the following: The Amalgamated Dental Co., Broad Street, Golden Square, W.C., and 16, St. Thomas's Street, S.E.1; The Dental Manufacturing Co., Alston House, Newman Street, W., and 2, Maze Pond, S.E.1; Cottrell & Co., 15-17, Charlotte Street, W.1; L. Porro, Ltd., 33, New Cavendish Street, W.1; The S. S. White Co. of Great Britain, Ltd., 126, Gt. Portland Street, W.1, and 19, Borough High Street, S.E.1. It is a wise precaution to arrange with the company supplying the instruments at very small extra cost to have the handles of all instruments stamped with the student's initials. Students are advised not to purchase equipment or instruments from other students without first referring and submitting these to a member of the Staff.

The course of study for the B.D.S. London covers a period of five years, of which the first year consists of Chemistry, Physics and Biology. The second year is occupied with the study of General Anatomy and Physiology, General Histology and Dental Prosthetics. The study of Dental Prosthetics is continued during the third year, together with Dental Metallurgy. The subject of Dental Anatomy and Physiology, Dental Histology, Medicine, Pathology and Bacteriology constitute the fourth year's work, and the fifth year is occupied by General Surgery (Lectures, Demonstrations and Dressings), Operative Dental Surgery, Orthodontics, Dental Materia Medica, Dental Bacteriology and work in the Conservation Room.

L.D.S. students who come under the New Regulations must pass the Pre-Medical Examination in Chemistry and Physics before they can begin their four years' course. Subsequently, their first term is devoted to Dental Mechanics

and Elementary Anatomy and Physiology, and it is important that the student gets a good grounding in the former at this early stage. During the remainder of the first year the student continues his work in these subjects and takes Part II of the First Professional Examination at the end of the period. In his second year he completes his training in Dental Mechanics, studies Dental Anatomy and Physiology, Normal Dental Histology and Dental Metallurgy, and takes Part III (Special Anatomy and Physiology) of the First Professional Examination at the end of the second term, and Part I (Dental Mechanics and Metallurgy) at the end of the second year.

Third-year students for the L.D.S. begin the Clinical courses with a period of probationary work upon the phantom head. The operative course, conducted by a Staff demonstrator, is very comprehensive. It includes most of the operations that the student will subsequently be called upon to perform upon patients, namely, gold and other fillings, crowns, inlays and the treatment of devitalised and septic teeth. These operations upon the dummy form an excellent ground work in operative dentistry.

Thereafter the course of work consists in holding and diligently carrying out the work of the following appointments: *Probationer Dressership in the Conservation Room; Dressership to the Director of the Conservation Room; *Dressership in the Conservation Room; *Dressership in the Children's Department; Dressership in the Local Anæsthetic Extraction Room; Dressership in the General Anæsthetic Extraction Room; Casualty Dressership; Clerk to Anæsthetist.

In addition, the students prepare for the Second Professional Examination in Medicine, which is taken at the end of the third year of study, and attend the courses in General Pathology, Bacteriology and Medicine. Students are reminded that no course of study for this examination is recognised until Parts I and II of the First Professional Examination have been passed; furthermore, no study for the Final Examination is recognised until the whole of the First Professional Examination has been completed.

During the fourth year, students continue with their appointments in the Conservation Room, Anæsthetic Room and Children's Department, and, in addition, attend the courses of instruction in preparation for the Final Examination, *i.e.*, General Surgery, Dental Surgery, Operative Dental Surgery, Orthodontics, Dental Materia Medica, Dental Bacteriology and Radiology.

No students, apart from those holding the post of Assistant Dental House Surgeon, are allowed to work in the Conservation Room unless holding one of the appointments marked *, and application for these appointments must be made by the student quarterly, in March, June, September and December. A helpful pamphlet is available at the Medical School Office, perusal of which will indicate when and for what posts to apply.

An X-ray course is taken by the student in his final year.

The time varies, according to whether the course for the B.D.S. or L.D.S. is being taken, at which a student will come into actual contact with Hospital patients, and he should always try to be punctual in his appointments with them. There is nothing more irritating and annoying to a patient than to be kept waiting unnecessarily; it also delays to a very great extent the easy working of the Department, and is detrimental to the public esteem of the Hospital. Further, the student should always remember to cultivate a courteous and gentle manner towards his patients.

Dental students will profit by following the practice of the Special Departments of the Hospital, *e.g.*, Throat and Ear. They will also have numerous opportunities of observing the more remote effects of dental disorders in the General Wards and Out-Patient Department.

Students in difficulties about their work and needing advice are invited to consult the Dean, Sub-Dean, Administrative Dental Officer or any other member of the Staff, who will be pleased to do what they can to promote their interests.

Guy's Hospital Clubs' Union

THE formation of the Clubs' Union, by the amalgamation of the then existing clubs, took place in the summer of 1891. The object of the amalgamation was to further the interests of the different clubs and societies by their mutual support, and to simplify the collection of subscriptions. By the payment of an annual subscription, at present amounting to 5 guineas per annum, a student obtains the privilege of membership of all the constituent institutions, whereas non-members are excluded from participating in the activities of any.

The affairs of the Clubs' Union are under the control of the Clubs' Union Council, consisting of six Staff and six Student representatives. The Constituent Institutions are: Association

Football Club, Athletic Club, Cricket Club, Debating Society, Dental Society, the *Guy's Hospital Gazette*, Golfing Society, Hockey Club, Lawn Tennis Club, Pavy Gymnasium, Pupils' Physical Society, Rifle Association, Rowing Club, Rugby Football Club, Sailing Club, Squash Racquets Club, Students' Club and Swimming Club. The Christian Union, the Guy's Physiological Society and the Guy's Hospital Musical Society are at the moment not affiliated.

The ground of the Clubs' Union is within 15 minutes' run of the Hospital (in this respect we are very fortunate), situated close to Honor Oak Park Station on the Southern Railway (Brighton Section) and close to Crofton Park Station on the Southern Railway (South-Eastern Section). It is about fifteen acres in extent, and is the headquarters of the Guy's Football, Cricket, Athletic and Lawn Tennis Clubs. The Pavilion has recently been enlarged and improved, and hot and cold showers installed, in addition to several fine baths. A ground is provided for the Junior Rugby Clubs and for the Hockey Club at Worcester Park, which is easily reached from Waterloo Station. Members of the Golfing Society may play on one of many courses at specially reduced rates (see Golfing Society notices). The Rowing Club is affiliated to the London Rowing Club at Putney, where members are entitled to all the advantages of that club.

By kind permission of the Matron a swimming bath in the Nurses' Home is available for students on alternate days. Near this is a court for Squash or Fives (the property of the Hospital) and a recently erected squash court (the property of the Clubs' Union). Times may be booked in the College for play on either of these courts. A shower bath and changing room are provided adjoining the courts.

***Attention of readers is drawn to the section on Sport where accounts will be found of the Hospital Boat Club and of the Inter-Hospital Hare and Hounds.*

THE STUDENTS' CLUB

The Students' Club, perhaps the most important section of the Clubs' Union, is housed in the College, where there is now an excellent Catering Company, open only to members of the Clubs' Union. The Pavy Gymnasium is also housed here, where classes are given in Boxing, Fencing and Gymnastics. The Physical and Debating Societies hold their meetings in the College.

Further information about the different clubs can be found in the Clubs' Union Year Book—obtainable at the Medical School Office, and new students are also advised to consult the notice boards in the Colonnade.

Considerable improvements have recently been effected at the ground at Honor Oak Park. There is a new Grand Stand, replacing that destroyed last year by fire, and seating 600 people. There are three hard tennis courts open for general use. A considerable sum has been spent upon thoroughly redraining and returfing the ground, and it is now in excellent condition.

An excellent programme of home matches has been arranged by the Rugby Football Club—*vide* Fixture Cards—and it should be noted that members of the Clubs' Union are entitled to free admission to the ground on these, as on all, occasions, on production of their membership cards.

For many years it has been our hope to effect a reduction in the subscription fees, but when the many privileges are considered, the fee is only moderate.

Rugby Football Club

THE improvements at Honor Oak Park, announced as imminent a year ago, have been realised and have more than come up to our expectations. The new stand, with its graceful lines, has proved a popular resort for many on Saturday afternoons, and has considerably improved the general appearance of the ground. As many may remember, it was opened earlier in the year on the occasion of the Hospital playing Cambridge University, and a dinner was held in the evening at the Grosvenor House, which was attended by many Guy's men, both past and present.

The extensions of the pavilion have added greatly to the comfort of those playing in matches by the provision of extra washing accommodation, while the new and longer tea-room always seems to be well filled on Saturday afternoons.

The ground is also in excellent condition, and the attempt to provide better drainage has, mainly owing to much hard work on the part of Kirby, proved a great success.

Of the season 1935-36 there is little to say, as a complete summary has already appeared in the *Gazette* and we need waste no more space in retrospect, but we can consider ourselves fortunate in that all the members of last year's side are again available, as well as several prominent members of last year's successful "A" XV, all of whom are likely to make a strong claim for inclusion in the 1st XV before very long.

The captaincy rests this season in the capable and painstaking hands of R. C. S. Dick, and there is no doubt that, given the support which his energy and determination deserve, we shall have a side equal to any of those of the past few years.

It is hoped to bring the teams into closer contact than has been the case during the past few seasons,

to comb the junior sides for latent talent, and to attempt to develop this to our best ability, because we have no doubt that there are plenty of players of merit, and the only difficulty is to discover them. In an endeavour to do this, a series of trial games have been played, which, it is hoped, will be continued during all the earlier part of the season in a further quest for talent.

Of possible material among those who have come to Guy's during this year we know very little, as yet. Rumours are many, and the names of players from overseas have been mentioned, but for the present they remain merely rumours, and we deem it more prudent to await results than to attempt to prophesy. However, newcomers to Guy's will find a list on the screen in the Colonnade, urging them to give particulars of their position on the field and any team for which they have played. The first trial game will be arranged for a Wednesnesday in the near future.

Finally, we offer our sincere thanks to Mr. Hughes for the time and energy he has spent on the Rugby during the last year, and look forward to another season with him as president of the Club.

E. S. NICHOLSON.

Association Football Club

LAST year this Club was not so successful in its matches as is usual, chiefly owing to the departure of some of our best players and to the non-arrival of any new players of note. This year, however, we have already had some new players, chief among whom are F. K. Johnson and J. Heap. The captain this year is H. A. Lee, last year's vice-captain, G. D. Dorr is vice-captain and G. C. Sprigings is again secretary.

This year the fixture list has been strengthened by the addition of fixtures with such teams as Old Wykehamists, Old Reptonians and Old Bradfieldians. There is also a good list of fixtures for the second and third elevens.

This year the Hospital has already had two of its members playing in the United Hospitals' team, G. G. Rees and R. D. Harvey.

It is to be hoped that anyone who plays "soccer" will put his name on the lists in the Colonnade. Having done this he can be sure of being given a game.

Below is given a list of fixtures.

FIRST ELEVEN FIXTURES, 1936-37

1936

Oct. 3. Old Cholmelians.
„ 10. National Bank of India.
„ 17. St. Catherine's College, Cambridge.
Oct. 28. R.A.M.C., Aldershot.
„ 31. Old Wykehamists.
Nov. 7. Casuals.
„ 14. Old Cholmelians.
„ 21. Lancing Old Boys.
„ 28. Old Malvernians.
Dec. 2. Wellingborough.
„ 12. Middlesex Hospital.
„ 19. South Hants. Nomads.

1937.

Jan. 2. H.A.C.
„ 9. Casuals.
„ 13. Brentwood Mental Hospital.
„ 16. H.A.C.
„ 23. National Bank of India.
„ 27. Brentwood Mental Hospital.
Feb. 10. R.A.M.C., Aldershot.
„ 13. Beckenham Bedouins.
„ 20. Old Reptonians.
„ 27. St. Catherine's College, Cambridge.
Mar. 6. Old Bradfieldians.
„ 20. Beckenham Bedouins.

GUY C. SPRIGINGS,
Hon. Secretary.

Hockey Club

WE look forward to this season with mixed feelings. We are sad at losing some of our old and trusted players, but there is a nucleus of good material with which to build, and there are promising players among the junior teams. This is proved by our second eleven winning the Junior Hospitals' Cup last year, and the keenness which these men showed promises close competition for those places left vacant.

The old junior ground at Worcester Park has been given up, and is replaced by an excellent one at the London University Athletic Ground at Motspur Park. We have been down to see this, and its quality is such that two or three years ago the First Eleven would have been pleased to have it. We are indebted to the Clubs' Union for this great improvement.

The season has already started, and notices of games are posted on the notice board in the Colonnade. Additions to the fixture list have been made to the limits of sound finance, and those dates coinciding with examinations have, as far as possible, been avoided.

Last year's captain and secretary are still with us. J. B. Franklin is our new captain and also captains the United Hospitals' team. C. F. Wright, who was our secretary, is vice-captain.

Although a number of seasoned players remain, there is room for fresh talent, and we look forward

to welcoming many newcomers to one or other of our four elevens. We would emphasise the need for regular exercise, and that there is a place waiting for everyone, good, bad or indifferent. A list is posted in the Colonnade, and anybody wishing to play, whether or no he has played before, should put down his name there.

President.—E. P. Poulton, Esq., D.M.

Captain.—J. B. Franklin.

Vice-Captain.—C. F. Wright.

Hon. Secretary.—A. C. Greene.

Team Secretaries.—

First Eleven ..... A. C. Greene.
Second Eleven ..... S. G. McCallin.
Third Eleven ..... D. A. Hamilton.
Fourth Eleven ..... D. A. Osborn.

FIRST ELEVEN FIXTURES

1936			
Sept.	30	High Wycombe	Home
Oct.	7	St. Bartholomew's	Home
„	10	University College	Away
„	14	U.C.H.	Home
„	17	Police College	Away
„	21	Reading University	Away
„	24	Northampton	Away
„	28	Westminster Hospital	Home
„	31	Hertford College, Oxford	Away
Nov.	4	United Hospitals' Trial.	
„	11	Aldershot Command	Home
„	14	West Herts.	Home
„	18	Clare College, Cambs.	Away
„	21	London Hospital	Home
„	25	R.N.C., Greenwich	Home
„	28	The Nore Command	Away
Dec.	2	Hampstead "A"	Home
„	5	Middlesex Hospital	Home
„	9	Shoeburyness Garrison	Away
„	12	St. Thomas's Hospital	Home
„	16	High Wycombe	Away
1937			
Jan.	2	The Scorpions	Home
„	9	West Herts.	Away
„	16	King's College Hospital	Away
„	23	R.A.F., Halton	Away
„	27	Clare College, Cambs.	Home
„	30	The Nore Command	Home
Feb.	3	R.N.C., Greenwich	Away
„	6	Caius College, Cambs.	Away
„	10	Staff College, Camberley	Away
„	13	Caius College, Cambs.	Home
„	20	Sevenoaks	Home
„	27	Cranley School	Away
Mar.	6	Barnet	Home
„	10	Charterhouse School	Away
„	13	Middlesex Hospital	Away

Grounds.—Honor Oak Park (First and Second Elevens), trains from London Bridge (S.R.) to Honor Oak Park station. London University Athletic Ground (Third and Fourth Elevens), trains from Waterloo (S.R. Main Line) to Motspur Park station. Cheap tickets are obtainable from the College Restaurant.

Ice Hockey Club

ALTHOUGH formed less than a year ago and only recently affiliated to the Clubs' Union, the Ice Hockey Club has become one of the most popular of the Hospital Clubs.

The first part of last season was confined mainly to tactical training, and resulted in Guy's being able to produce two teams and many extra players playing hockey of a standard which compared very favourably with other London amateur teams of longer standing.

Harringay Ice Rink, one of the latest and best in London, will be the Club's headquarters this year. Ample opportunities will be given to newcomers to familiarise themselves with the game, and incidentally to become proficient skaters.

Further information can be obtained from E. P. O. Watson, Dental Dept., and R. J. Simms.

The Club is very grateful to Mr. Slesinger for all the assistance he has given it, and we look forward to the season with him as President.

Lawn Tennis Club

THE Lawn Tennis Club at Guy's has just completed a successful season. The First VI is in the final of the Inter-Hospitals' Cup, which has not yet been played.

The First and Second VI's had a full fixture list, and further matches were arranged for a Third VI. These were very much enjoyed, and are to be continued. The fixture list contained matches against Melbury L.T.C., Bart.'s, R.M.C., Camberley, Sydenham L.T.C., and some fixtures with Oxford Colleges.

The Tournament for the Lane-Washbourne Challenge Cup was held as usual and had a big entry. This competition is held annually during the Summer Term and is open to all students. Trials are held early in the Summer Term, and all players are welcomed. It is hoped that all new members of the Clubs' Union who play tennis will make use of the facilities provided, which compare favourably with most clubs.

The courts are at Honor Oak Park. There are twelve grass courts and three hard, one of which has been lately relaid. The dressing accommodation has been enlarged and hot showers

are available. Balls can be purchased from the groundsman ; balls that have been used in matches are offered at a reduced price.

All equipment can be obtained at Lillywhite Frowd's at advantageous prices by members of the Clubs' Union.

Squash Racquets Club

IF the number of people who play a game is the gauge of its popularity, then squash is the most popular game at Guy's. Almost a year ago there was a demand for a second court, one court being obviously insufficient for the needs of the Squash Club. Letters were written to the *Gazette* and a search was made for a suitable site for another court. Unfortunately none could at once be found. Furthermore it was learned that the court used at present would be pulled down when the plans for the extension of the Nurses' Home were carried out.

The outcry raised was calmed by the counter-raising of an official hand and a secret showing of the plans for the new Pathology Block. It was seen that space for two courts had been left, and that the plans for the courts were actually included in the main plan. Next the " empty treasure chest " was shown, and we withdrew with hopeful understanding. Academics and squash players go hand in hand crying, " Ah, for a new Pathology Block ! "

An attempt was made last year to encourage the players on the squash ladder to play each other more often. Cards were sent to each person whose name was on the ladder ; the secretary repeatedly asked them to play, but one has only to look at the ladder now, with its somewhat surprising order, and the quips which that arch-enemy of officialdom, the scribbler-on-walls-doors-and-notices, has added, to realise that this apparently was not enough. Yet at St. Mary's there is a ladder of thrice the length and it works well.

Last year's team for the Hospitals' Squash Cup has been sadly depleted. Although strong on paper, we had not much success on the court. We were in Division I, and although we beat St. Mary's by one point, we have been relegated to Division II, where are all the hospitals except the four in Division I. In view of the weakness of our team for the year, perhaps it is just as well.

The standard of squash players at Guy's is certainly not high, and although there seems to be a great enthusiasm for the game, little individual progress in skill is made. It has been pointed out very often that only by playing people better than oneself can improvement be made. Once more the ladder will be organised, and it is most earnestly to be hoped that players on it will play their matches, and that others will attempt to get on the ladder by challenging any of the lowest three players on the ladder.

There are two or three vacancies in the team and many players of average ability from which to fill them. Will anyone who feels that he would like a trial please get into touch with A. D. Willis, who is acting secretary during the secretary's current illness ?

One word for players : it is advisable to use the " Silvertown " squash ball, for this is the official ball of the S.R.A. and is used in all competitions and matches.

Notices concerning the matches will be found on the board in the Colonnade. Staff *v.* Students and Dental *v.* Medical matches are to be arranged early in October.

Other matches are against the Jesters, Escorts, the Wildernesse Country Club, Reigate, Wellesley and Old Boys of Lancing, Wellington, Clifton and St. Paul's, etc. It is hoped to arrange a tour at Oxford next year, when matches against New College and Magdalen College will be played.

R. GILBERT HARRIS,
Hon. Secretary.

Rifle Association

THE Rifle Club made such a poor start at the beginning of the season that a great improvement towards the end came too late. In the Inter-Hospitals' Shoot for the Armitage Cup at Bisley in June, Guy's was finally placed third.

SCORES

Hospital	*1st Stage*	*2nd Stage*	*3rd Stage*	*4th Stage*	*Total*
St. Thomas's	577	573	574	594	2,318
St. Mary's	574	573	568	571	2,286
Guy's	555	558	583	577	2,273
Bart.'s	555	568	569	572	2,264

London and Middlesex Hospitals did not finish.

In a six-a-side match against the City Rifle Club in June, the Hospital lost by one point : City R.C., 585 ; Guy's Hospital, 584. (Included in the City Rifle Club Team were three King's Prize winners !)

The United Hospitals' Challenge Cup (presented by the National Rifle Association) was won at the Imperial Bisley meeting in July by St. Thomas's Hospital, with Guy's Hospital second.

	Scores
St. Thomas's Hospital	483
Guy's Hospital	473
St. Mary's Hospital	466
St. Bartholomew's Hospital	460
Middlesex Hospital	457
London Hospital	420

In the individual events at the Bisley meeting, G. E. Barnard so far forgot himself as to gain ninth place in the King's Hundred for the King's Prize with a score of 265, seven points behind the winner—Sergt. L. D. Busschau, of South Africa. Barnard won the " Egg Pool " aggregate, and he and E. Allen appeared frequently in other prize lists.

At the Bisley meeting the United Hospitals' Rifle Club gained third place in the Astor Cup County Challenge, third in the " Belgian " Challenge Cup Competition, and tenth in the " J. H. Steward " Challenge Cup.

The Guy's Hospital Rifle Club annual meeting was held on Sunday, 16th August. The Newton Pitt Challenge Cup, the Handicap Challenge Cup, the 200 yards and 500 yards Range Prizes were won by G. E. Barnard, and the 600 yards Range Prize was won by E. Allen. In the Newton Pitt Challenge Cup, E. Allen, and in the Handicap Challenge Cup, W. T. Athey were placed second.

The annual match against the Staff was fired on the same day and resulted in a win for the Students. Mr. Batchelor won a tankard offered for the highest score made by a member of the Staff.

The prospects for the Rifle Club for 1937 are good, there being excellent " material " for the making of the team. It is proposed to open the season at least a month earlier in order to fit in more practice shoots before the first Inter-Hospitals Competition is shot in June.

A miniature Rifle Club has just been formed, having its Club Room and Range close to the Hospital. Further details will be found elsewhere in the *Gazette*.

Sailing Club

THIS summer has shown a marked increase in keenness and enthusiasm over all branches of the Club's activities.

In the one-design dinghy class, although *Grebe* was sailed regularly every race-day we were unable to regain the Harvey Cup. However, the Bourne Trophy and Sherren Cup will decorate the " Spit " this year.

Nearly twenty Guy's men have been cruising in home and Continental waters this summer, from the Baltic down to the west coast of France. In the Royal Ocean Racing Clubs, Estuary, Maas and Benodet races the Hospital was well represented.

It is hoped that next season will bring forth fresh talent in helmsmanship from the new blood at the Hospital. All members of the Club's Union are eligible for membership to the Guy's Hospital Sailing Club, which is affiliated to the United Hospitals' Sailing Club. This Club possesses its headquarters at Burnham-on-Crouch, Essex, the club-house being a converted barge.

There are facilities for eating and sleeping on the barge very cheaply, and even gentlemen of moderate thirst can spend quite a pleasant week-end there for ten shillings.

Burnham is just over an hour's journey from Liverpool Street by L.N.E.R. There is a good service on Saturday mornings.

One important activity of the U.H.S.C. that must be mentioned is the Annual Ball at Covent Garden Opera House. A glance at the increasing attendance for the last three years testifies to its popularity. Tickets can be had up to the night of the dance, Friday, October 16th.

Any further information with regard to the Club or the Ball can be had from the secretary.

J. S. Crone.

The Pavy Gymnasium

THE Pavy Gymnasium, built and maintained by the generosity of Dr. F. W. Pavy, is situated in the College and is open to any member of the Clubs' Union at any time. It is equipped for Boxing, Fencing and Gymnastics, and is the headquarters of those clubs. An efficient heating apparatus has recently been installed. There are showers and baths adjacent.

The respective clubs hold their meetings as follows :—

The Boxing Club has already started training for the season. Alf. Hewitt is with us still, and we are fortunate to have again the services of the best instructor in town.

In order to maintain a good standard, however, new members are urgently required. The Club would welcome any newcomers to the Hospital, whether with or without previous experience, who are willing to come down to the Gym. and box.

Training takes place in the Pavy Gymnasium on Tuesday evenings at 5 o'clock. Further information may be obtained on application to the Hon. Secretary.

The Fencing Club meets twice weekly, on Wednesdays and Thursdays at 4.15 p.m., when two instructors are available. An Inter-Hospital Competition takes place once yearly, and many matches are fought against other clubs. Several

2nd Team matches have been arranged in order to provide interest for those whose experience is limited. At the end of the season a Novices' Competition is held in Foil for those of one year's experience, or who have never represented the Hospital. The winner holds a very handsome cup for a year. It is hoped to inaugurate a Novices' Sabre Competition on the same lines, but up to the present there is no cup available.

The Gymnastic Club holds its meetings once a week on Fridays at 5 p.m. The class is taken by an instructor and exercises are carried out both with and without the help of the apparatus. Efforts have been made to arrange matches with other clubs. A Gymnastic Competition is held yearly. The apparatus is always available for practice. It is rather a forlorn hope to ask that those using it should put it away when they have finished.

Further details of the above clubs may be found on the notice boards in the Colonnade. A cordial welcome is extended to all new members, who are invited to turn up at the meetings, no matter whether or not they have had any previous experience.

The Pupils' Physical Society, 1936-37

Hon. President.—John Fawcett, M.D.

Hon. Vice-Presidents.—Sir William Hale-White, K.B.E., M.D.; Sir W. Arbuthnot Lane, Bart., C.B., M.D.; A. P. Beddard, M.D.

Hon. Secretaries.—H. J. B. Atkins, M.Ch., C. G. Baker, M.B., M.R.C.P.

The Pupils' Physical Society of Guy's Hospital is an old and honoured institution. With some such trite tag as this countless secretaries have introduced the Society to the notice of new students entering the wards of Guy's Hospital. Forty years ago, young men would present their papers to the Society with a similar remark, and add that they felt honoured to be allowed to read their papers before so learned a body. The odd thing is that what they said was true; honoured they were, and old and learned is the Society.

I have this evening been reading through the Minutes, as they are written down from 1885 onwards. By doing this I was impressed with the continuity of tradition which has existed through that time and doubtless from times still earlier. The Physical Society has a character of its own such as is only attained by the exercise of much thought and effort on the part of its officers, those who have shown cases and read papers.

In these Minutes are reflected the history of Medicine during the past 50 years, the changes which have taken place in medical training, even the changes in the mode of life of students and of Staff. Illuminating flashes fall from time to time on great characters of the past who exist for us as names only: Samuel Wilks, William Osler, Frederick Taylor, E. H. Starling—and most of those whose names figure to-day on the honorary and consulting staff stand out for a moment as having held office, read a paper, or taken part in a discussion of the Society. The scene changes, the names change, but throughout runs the thread of continuity.

In looking through the programmes of the Society, one is struck by the fact that from 1885 to 1888 a paper was read on eleven of the twelve occasions the Society met annually. In 1889 it was suggested that clinical meetings should be held more frequently—every third meeting. Those were spacious days, when members readily transferred their views to paper and flocked to hear each other talk. In those days, too, members of the Society paid five shillings subscription, and in 1888 the Minutes inform us that ninety of them did so, though I notice the secretaries' tick against the names of those who paid is sometimes absent.

It is of interest to compare the titles of papers read in the eighties with those of more modern times. "Empyema," by F. Heatherly, "Puerperal Eclampsia," by G. Rowell, "Diabetes," by H. J. Campbell, were subjects in the programme of 1886-87. Any of these might form the subject of a paper to-day, but how differently would they be treated. Occasionally a paper is read which throws some light on the prevailing subjects of medical interest at the time. "Hydrophobia" was the title of C. J. Whitby's paper in 1886, just a year after Pasteur had successfully treated his first case. "Diphtheria," by W. C. C. Pakes, was the subject of a paper read in 1894-5 at the very time when Roux and Behring were carrying out their pioneer work with the use of diphtheria antitoxin. In 1911 a discussion on "Bone-Setting" was opened by Mr. (now Sir) Arbuthnot Lane—the title reminds one of the revolutionary changes in bone-surgery that had a short while before been introduced by Mr. Lane himself.

Throughout the first half of the Minute Book are scattered letters from Sir Samuel Wilks, the honorary president for many years. In reading these letters one cannot fail to be impressed by the sincere love he had for all things connected with Guy's, and especially the Physical Society.

In 1900 he replies to the then secretary, Mr. Bellingham-Smith, expressing his willingness to take the Chair at the opening meeting, but modestly suggests that a younger member of the Staff should be appointed in his place. "If anyone could give me a hint by saying that a change was desirable," he says, "I could send in my resignation." No hint was given, however. In 1907, in a further letter, he again suggests that a younger man be chosen and at the same time mildly reprimands the secretary for not having provided him with a paper of the proceedings to which he could refer, on the occasion of the opening meeting the previous year. The last reference to Sir Samuel is made on the occasion of the Conversazione with which the Society opened its session in October, 1910. This was a great occasion; the function was held in the new Medical School Buildings still uncompleted, and on this occasion many of the oldest members of the Staff who represented the past era in medicine met with those whom we now know as senior members. Thus Sir Samuel was in the Chair, "supported," as the *Gazette* report says, by Drs. Perry, Goodhart, Taylor and Savage, vice-presidents. Drs. Hale-White and Lauriston Shaw were still on the Staff, as was Sir Charters Symonds and all were present, and of those better known to us were Messrs. C. H. Fagge, Eason, Mollison, Bellingham Smith, Hopson, Dowsett and Aubrey.

Dr. Eyre showed some "very fine slides and a series of exhibits showing the various stages of the Wassermann reaction," and gave a "clear account of the meaning of the test and the method of carrying it out to an interested crowd." Dr. Price Jones showed a Burker's modification of the Thomas Zeiss Hæmocytometer, and Dr. Ryffel demonstrated "some clinical methods." On this occasion Sir Samuel Wilks brought down his diploma of qualification signed by Liston and others in 1847. Is it too late to hope that some member of the Staff, who still remembers the earlier generation, their characters, their habits and idiosyncrasies, should read a paper to the Society about them, before they and the type of medicine they represented are forgotten? Sir Charters Symonds delivered an inaugural address in 1922 entitled, "Some Old Surgeons and their Writings," from Chesledon of St. Thomas's (1718-1738) to Henry Howse (1870-1902).

One other meeting should be mentioned as of special importance. This was held on October 21st, 1905; the Society was addressed by Sir William Osler, and it was the first occasion on which he spoke in public in this country since his appointment to the Chair of Regius Professor of Medicine of Oxford. The subject of this address was the life and works of Sir Thomas Browne' born just three hundred years before.

These details throw some light on the Pupils' Physical Society in the past. It fills the same need now that it filled a hundred years ago when it was founded on its present basis. It offers an opportunity for those to whom Medicine (and the word is used in the comprehensive sense, which includes Surgery) is something more than a mere means of existence, for those who desire to know more than is necessary merely to get through examinations—in short, for those for whom Medicine is still an Art.

The Society has a full programme for 1936-37, and will meet on alternate Thursdays throughout the winter, starting on October 15th, when Mr. J. S. Wilkie is opening a discussion on a psychological subject. The guest of honour this year is H.M. Coroner for South London, Dr. Cowburn, who on October 15th is to talk about Homicide, and will probably cause a record attendance.

There are the usual combined meetings with the Physiological Society, with St. Thomas's Hospital both at home and away, and two papers by members of the Society will be read during the season. The remaining evenings will be occupied with clinical meetings, and it is on these that the success and enjoyment of the Society largely depend.

The comfort of the new "Spit" will be a very pleasant and welcome change, especially as it is hoped that it will be possible to obtain refreshments during the meetings. It must be emphasised that these clinical evenings are not run and attended only by senior students and house officers, but that all who have started to carry the stethoscope are not only welcome but needed.

Guy's Dental Society

THE Annual General Meeting of the Dental Society was held on Monday, September 28th. The following officers were elected for the year 1936-37 :—

President :

M. A. Rushton, Esq., M.B., B.Ch., L.D.S.

Vice-Presidents :

W. Kelsey Fry, L.R.C.P., M.R.C.S., L.D.S.;
A. Bulleid, L.R.C.P., M.R.C.S., L.D.S.;
K. Hooper, L.R.C.P., M.R.C.S., L.D.S.;
R. E. Rix, L.R.C.P., M.R.C.S., L.D.S.;
F. S. Warren, L.R.C.P., M.R.C.S., L.D.S.;
H. L. Messenger, L.R.C.P., M.R.C.S., L.D.S.

Hon. Secretary.—P. Borghys.
Dental Correspondent.—P. Ellis.
Hon. Treasurer.—M. M. Cripps.
Hon. Dance Secretary.—C. M. W. Debenham.

Committee.—

Any Year Representative	F. McCombie
4th Year Representative	A. D. W. Robertson
3rd Year Representative	P. B. Myers
2nd Year Representative	B. D. Clark
1st Year Representative	S. B. Bennett

The purpose of the Society is to enable all members of any year to meet fortnightly to listen to and discuss papers read by student and qualified members of the profession. The meetings in the forthcoming year will be held on Thursdays.

The papers read during the last year were :—

1. " Dental Radiography," by Mr. Beater.
2. " Newer Information on Local Anæsthesia," by Mr. G. H. Ellingham.
3. " Modern Research and the Practitioner," by Mr. W. Stewart-Ross.
4. " The Gingival Trough," by Mr. R. F. Holland.
5. " Causes and Diagnosis of Pain of Dental Interest," by Mr. C. G. Wright.
6. " Personal Issues in the Practice of Dentistry," by Mr. R. Cutler.
7. " The X-Ray Appearances of Dental Tissues," by Mr. P. M. Calder.
8. " Immediate Dentures," by Mr. H. C. Davies.
9. " Pulpless Teeth," by Mr. E. C. Sharp.
10. " Dental Anæsthesia," by Mr. T. A. B. Harris.
11. " Tumours of the Jaws," by Mr. Davies-Colley.

There was also a Casual Communication concerning " Three Cases of Cysts," by Mr. D. J. Wigginton.

From the above can be seen the extremely wide sphere which the meetings cover.

As the papers are open to discussion, the Society offers an excellent opportunity for any member who is really interested in dentistry as an art to express his personal views in public, and this is one of the main objects of the Society.

A Prize of Five Guineas is awarded each year for the best paper read by a student, and a prize of One Guinea for the best Casual Communication.

One of the most successful diversions of the Society is an Annual Dance, which, we feel sure, will again live up to its reputation as the best " party " of the year. The Dance is being arranged for the middle of November.

The Annual Dinner, held at Grosvenor House last year, proved so popular that it has been decided to hold it there again.

P. Ellis.

Golfing Society

President.—Dr. Cameron.
Captain.—I. G. B. Drybrough-Smith.
Hon. Secretary.—B. C. M. Reed.

THE Guy's Hospital Golfing Society has flourished for many years, and all those keen on golf are requested to join. Matches are played in the summer and winter sessions. During the summer club matches are played against Sidcup, Kingswood, Honor Oak Park, Royal Wimbledon, Beckenham, East Sussex Medico-Dentals, and an annual match between the Medical and Dental Schools.

During the winter session the Inter-Hospitals' Cup matches are played. Three years ago Guy's won the Cup ; the last two years Guy's have been defeated by St. Thomas's, the ultimate winners. There are also two " A " Team Matches against the London School of Economics and King's College, Strand.

The Hospital has obtained reduced rates of green fees at various courses around London. Details of these and any further information can be obtained from the Hon. Secretary.

B. Reed,
Hon. Secretary.

The Debating Society

THE Debating Society has had a varied career in which periods of intense activity have punctuated its long life of profound somnolence. It was revived in May, 1932, after a lapse of many years, and then under the presidency of Dr. Ryle, held a number of successful debates, before relapsing gracefully into coma during last winter. Why this happened nobody seemed to know, but it is very much hoped that during the coming season meetings may be arranged regularly once a month.

The Society is a constituent of the Clubs' Union, and all students are entitled to attend its meetings without further subscription. Indeed it is hoped that as many as possible will make a point of speaking at these meetings, since they provide practice in giving a reasoned exposition of one's views—an art lamentably rare even amongst the mighty.

Debates are held in the College Smoking Room, usually at 5.15 p.m., so that those living outside the Hospital may have a chance of attending, and refreshment is provided. Originally this took the form of coffee and biscuits, but recently an experiment was made in the provision of beer at all meetings, in the hope of inspiring a certain eloquence that comes to many only amidst the clink of classes.

However, in spite of this and the fact that meetings are held in the Smoking Room, it must not be thought that the Debating Society is merely a cloak for debauchery. The subjects for debate are varied, a Ladies' Night is provided for, and a combined meeting with the Nurses' Debating Society is usually held annually.

The annual general meeting will be held later in the month in order to elect a president, secretary and a general committee.

A. H.

The Physiological Society

THE distinction of possessing a Physiological Society is one which Guy's shares with only one other London hospital. The Society was founded in 1901 by Prof. Pembrey, and it has been truly described as his "ewe-lamb." Prof. Pembrey was one who, himself holding strong views on many subjects, rejoiced in verbal battles, and in the Physiological Society he sought at once to stimulate the student's interest in the problems of physiology and at the same time to encourage him to sharpen his wits and his tongue by defending his beliefs *coram populo.*

Changes have, of course, occurred since those primordial days. Prof. Pembrey has gone and the Society's student members alter from year to year, so that some of the original members now grace the Hospital Staff, but the Society itself, at present under the competent guidance of Mr. Spurrell, continues its evolution like the immortal germ-plasm, familiar to all biologists.

The Society meets during the Winter and Spring Terms once a fortnight at 4.30, and the meetings are generally preceded by an informal tea. The procedure at the meeting is for a (student) member of the Society to read a paper on some topic of physiological interest (the word being interpreted in the widest sense), after which the subject matter of the paper is discussed by the other members present. The chair is usually taken by some member of the Hospital Staff, who is particularly interested in the subject of the paper.

Lest any should be deterred from joining by the thought that the Society may bear the stigma of being a resort for "swots," let it be said that, with a few very isolated exceptions, all the people studying in the Physiology Department become members of the Society; membership is, however, not confined to such people, many staunch adherents being drawn from other sections of the Hospital community. It is the general finding that the Society provides a means of making the study of physiology a pastime rather than a drudgery, so that it might be called with equal appropriateness, though perhaps with less propriety, "the Brighter Physiology Society."

The annual subscription is a very modest sum, viz., 3*s.* 6*d.*, but this can be redeemed in kind by taking tea before the meetings, there being no charge made to members for this privilege.

The annual general meeting has just been held, but unfortunately too late for the names of the officials elected to be printed in this number. All who wish to join should apply to the secretary when his name is revealed on the notice boards in the Colonnade.

Guy's Hospital Musical and Operatic Society

SEASON 1936-37

THE Guy's Hospital Musical and Operatic Society is one of the non-affiliated societies, and, largely owing to the fact that the Society is incorporated with the Nurses' Choral Society, affiliation to the Clubs' Union is not possible. For its financial existence the Society is compelled to rely upon voluntary subscriptions and the support which it receives from its performances by the sale of tickets. Membership is open to all members of the Medical, Dental, Nursing, Massage and Administrative staff on payment of an annual subscription of 1*s.* 6*d.* from female members and 2*s.* 6*d.* from male members.

The Society was founded in 1903 by the Union of the Nurses' Choral Society and the Students' Glee Club, whose activities consisted for many years in giving musical concerts. The Society was revived after the war, and in 1924 entered on what was to be a long run of producing Gilbert

and Sullivan operas. Although faced with many difficulties, particularly in finding new principals to take the place of old favourites, the Society has emerged with much success, and concluded its series of Gilbert and Sullivan operas by giving five performances of "Princess Ida" at the Fortune Theatre in March, 1936.

Unfortunately, so many active members have left the Hospital since these performances that it has become necessary to make a change of programme for the coming year. Already a nurses' choir has been re-formed and has shown great progress in early rehearsals, while it is proposed shortly to start rehearsing a male-voice choir and to begin work with the orchestral section. In this way it is hoped to lay the foundation for an even more successful operatic production towards the end of next year and to maintain the high position held among amateur societies.

It is early yet to give the details of the future programme, but already plans for a concert, including vocal and orchestral items, are being prepared.

We are particularly anxious to gain the co-operation of newcomers who are interested in music, and in order that they may be included in coming productions we would ask them to indicate their interest as soon as possible.

Further particulars may be obtained from Mr. G. A. R. Winston, the Wills Librarian, and the honorary secretaries, Mr. L. F. W. Salmon and Mr. W. E. Greenwood, or at the School Office. Information concerning rehearsals will be posted on the Notice Board in the Colonnade.

The Christian Union

THE first mention of a Christian Union at Guy's occurs in 1849, when Dr. Habershon, of Guy's, and Dr. Gladstone, of St. Thomas's, which was then on the other side of St. Thomas's Street, started a "Bible Reading" for their students.

In 1853 the name of Dr. Golding-Bird, then Assistant Physician to Guy's, became closely associated with the Union, and he took an active organising part in its proceedings.

Since those days the Union has continued, with one or two small intervals, and has undergone several changes in its organisation, made necessary by varying conditions, until it has reached its present form.

It now exists as a means of uniting those men in the Hospital who have taken the Lord Jesus Christ as their personal Saviour and are determined to live their lives to His glory, and to spread this knowledge of His saving grace. It forms a part of the London Inter-Faculty Christian Union, which is one of those incorporated in the Inter-University Fellowship of Evangelical Unions.

Anyone in sympathy with the objects of the Union is cordially invited to the meetings held in the Chapel, for prayer at 1 o'clock on Tuesdays and 12.40 on Fridays, and for Bible study on Tuesdays at 4.30.

Reviews

The Endocrine Organs in Health and Disease. By Sir HUMPHREY ROLLESTON, Bart., G.C.V.O., K.C.B., M.D. Published by the Oxford University Press. Pp. 491. *Price* 36*s*.

THIS most interesting book is the result of the Fitzpatrick lectures which were delivered by Sir Humphrey Rolleston before the Royal College of Physicians during the years 1933 and 1934. Under the terms of the trust of this lectureship, which is devoted to the history of medicine, the lectures must be "printed and published in a separate volume," but in revising them the author has taken the opportunity of expanding them considerably by inserting detailed descriptions of the anatomy, physiology and pathology of the various ductless glands, and in doing so has produced a most exhaustive survey of the whole subject of endocrinology.

After a lengthy preamble, discussing the evolution of the nomenclature and introducing many pioneers in the field of endocrinology, and during which interesting facts concerning primitive beliefs as to the functions of the various ductless glands are recounted, the book is divided into sections, each dealing with a particular gland or group of glands.

In each section the various organs are dealt with very fully, and after a short account of their embryology, the author goes on to discuss their anatomy and physiology in the light of present-day discoveries, before proceeding to a description of the various effects, both local and remote, which result from their dysfunction. For those who desire even fuller information, there is an extensive bibliography at the end of each chapter.

Throughout the whole book there appear interesting biographical notices and portraits of many of the early pioneers in this branch of medicine, which add greatly to the interest of the text.

Endocrinology is still in its infancy, and many more years of patient research will be needed before we can boast that our knowledge of the ductless gland system is in any way complete, but in recent years several most important discoveries have been made and so much written that the literature on the subject has become somewhat unwieldy. It is this reason, amongst others, that makes such a clear-cut résumé of the whole field of the work, as is produced in this volume, particularly welcome.

The whole book is beautifully printed, contains an adequate index, and though, perhaps, more of academic rather than practical interest, it seems to us a most valuable addition to the literature.

Food and Principles of Dietetics. By ROBERT HUTCHISON, M.D., LL.D., F.R.C.P., and V. H. MOTTRAM, M.A. Published by Messrs. Edward Arnold & Co., London. Pp. 611. *Price* 21*s.*

THE fact that this book has been through eight editions in the thirty-odd years since its first publication and that the eighth edition appears only three years after the seventh, is a convincing testimony of its popularity, if one is needed, and we feel that, like its predecessors, this volume will be of great benefit to all those who regard food from other aspects than that of taste, and are attempting to study dietetics, no matter for what purpose.

There have been no radical alterations since the last edition, but there have been many minor additions throughout the book and the first three chapters have been largely rewritten, whilst a most interesting chapter on the history of dietetics has been added as an introduction to the subject.

Like many other text-books, this volume was the outcome of a series of lectures, in this case to students at the London Hospital, and has been gradually expanded in the light of modern knowledge until it has become a most exhaustive survey of the whole subject of dietetics. There is no denying that it is most complete and that its information is up to date; almost every article of diet that we have ever eaten, and many that we have not, is discussed fully from the point of view of its chemical composition, its absorption and digestion, and its nutritive value as well as the more homely problem of its cooking. Much of the statistical information is arranged in tabular form, which makes the text much clearer and reference to the chemical composition of any particular foodstuff very much easier.

One of the largest chapters in the book is devoted to the subject of alcohol, and we were somewhat depressed to read the authors' conclusion that "alcohol is an unnecessary article of diet in complete health," although a little later on they agree with Mathew Arnold that "wine used in moderation seems to add to the agreeableness of life," and go on to add that in old age and in conditions of slight ill-health it is definitely beneficial. This is sufficiently broadminded to allow the reader to draw his own conclusions and offend no-one, not even us.

To quote again at random from a book that is never dull, there are some interesting remarks on offal and several facts about sausages that we did not know before and which have made us very careful since, but in the comparatively short space of six hundred-odd pages, an incredible amount of information is set down; from Bovril to Buckwheat and Asparagus to Ass's Milk, nothing seems to have been omitted, and we have no hesitation in recommending this book to anyone who is at all interested in this much-neglected subject.

Modern Treatment of Diseases of the Respiratory System. By A. LISLE PUNCH, M.B., M.R.C.P., and F. A. KNOTT, M.D., M.R.C.P. Published by Messrs. J. & A. Churchill, Ltd. Pp. 289. *Price* 15*s.*

IT has been said that Guy's is more famous for those who have left than for those who remain to work within its walls, and we are sometimes reminded of this when we read books written by Guy's men who have migrated elsewhere, but in his recent work on the treatment of diseases of the respiratory system, Dr. A. Lisle Punch, who was a student here and has since become one of the physicians to the Brompton Hospital, has been fortunate enough to have the co-operation of Dr. F. A. Knott, thus presenting the interesting, if not unique, combination of two one-time contemporaries, who have since carried on their observations in widely separated fields. It was therefore with more than usual interest that we read this book.

It is produced on similar lines to the now well-known "Recent Advances" series, and the authors state in their preface that it is intended to be used by general practitioners, house officers, senior students and other busy people who have no time to read the current journals and keep pace with the ever-increasing mass of literature, but who yet desire to keep in touch with modern methods of diagnosis and treatment. For such a purpose we have no hesitation in recommending

this book, and found in the comparatively short space of 289 pages a very readable account of diseases of the chest, which might well be read with advantage by anybody, especially those (and there must be many) who are preparing for an examination but who find the section on chests in the ordinary text-books of medicine more than inadequate.

Those who are qualified, and in particular those in general practice, will find much that is of great practical interest and much helpful advice upon such matters as the type of bronchiectasis likely to be improved by lobectomy, the criteria necessary before advising this operation, and the probable end-results.

The section on Tuberculosis is particularly well done and forms an up-to-date outline of all the available methods of treating the disease, together with much practical advice on the induction and maintenance of a pneumothorax, as well as an account of the more radical methods of obtaining collapse, such as thoracoplasty.

No review of this book would be complete without mentioning the illustrations. There are nearly a hundred plates showing X-ray photographs of all the important chest lesions and illustrating cases described in the text, as well as many other drawings of apparatus required for the various practical procedures.

Any such work as this is always open to controversy, as the authors can but state their own personal opinions, but in their review of the respiratory system they wisely leave untouched that supremely specialised area the nose and throat, and, taken as a whole, their conclusions seem sane and balanced.

In short, a very readable, if not always authoritative, survey of an all-important subject.

Practical Preparations. By N. W. POWELL. Published by Messrs. Faber & Faber. Second Edition. Pp. 312. *Price* 3*s.* 6*d.*

THE author of this little book is the late Sister Hope from St. Bartholomew's Hospital; revision has been made by the late Sister Tutor of the Royal Free Hospital. Although it is in appearance one of those too small books in which so much is left out that the whole ceases to be of any value, this is not, in fact, the case. It is a comprehensive book and deals with every kind of preparation that has to be made by the nurse, from preparations for examining the ears, duodenal intubation, lumbar puncture, cholecystography, basal metabolic rate, to the preparations for the various methods of aspirating the chest. It has practical notes on the composition and administration of enemata, the testing of urine, and every other kind of clinical investigation and treatment that the nurse is likely to meet with in her general training. Even the matter of leeches is dealt with.

The book is well written, well spaced and well printed. Out of the great collection of cheap text-books which are useless, this one stands out as a striking example of how good a book can be, though costing only three and sixpence. At such a sum it is a work which a probationer can hardly afford to be without.

A Textbook of Midwifery—Notes of Lectures. By JANE AITKEN. Published by Messrs. Ash & Co., Ltd. Sixth Edition. Pp. 120. *Price* 3*s.*

WE welcome the sixth edition of this small but helpful work, which has lately been thoroughly revised and had its information brought up to date. As Mr. Chapple remarks in the original preface, many works on midwifery have their facts so skilfully concealed in a multitude of words that it is difficult for the average nurse or midwife to disentangle them. Perhaps this is rather hard on the nurses, but there is no denying that in Miss Aitken's small book all the essential facts are set out with a clarity that might well be copied by those who contemplate larger works on the subject. There is a good chapter on antenatal care, and another matter to which scant attention is too often paid, that of puerperal and post-puerperal insanity, is dealt with succinctly and yet adequately enough to give the nurse such grasp of the subject as she needs. The chapter on infant feeding is also very well done.

In all it is an excellent book, and now there is no excuse for failures in the C.M.B.

Correspondence

The B.M.A.

To the Editor of the GAZETTE

SIR,—Dwelling in the Intellectual Stratosphere, it must be difficult at times for an editor to focus critically the lower forms of life which wriggle their sticky way across his optical field, especially when they merely obtrude themselves upon the periphery.

The question is one of resolution; and it is not the first time that defective resolving power has led to illusion. Speaking as one of the lower forms of life, I would suggest in all humility that editors

who find themselves unable to differentiate between the British Asses and the British MAsses—both of which are unstained—should make a resolution to apply for membership of the British Medical Association, when my friend Dr. G. C. Anderson will make it his special duty to see that they are correctly informed as to the date and place of the annual meeting.

Yours, etc.,
H. M. STANLEY TURNER,
Wing-Commander, R.A.F.
Member of Council,
British Medical Association.

Cranbrook,
Kent.

****We have expressed regret for this error elsewhere.*

Guy's Hospital Miniature Rifle Club

To the Editor of the GAZETTE

SIR,—Those interested in rifle shooting will be glad to hear that the Hospital Miniature Rifle Club has been formed. The Club premises are situated at Mark Brown's Wharf, Potter's Fields, Tooley Street, S.E.1, and comprise a first-class 25 yards' range and a lounge. The Club possesses four of the latest B.S.A. miniature match rifles for the use of members and full equipment. Ammunition is supplied at a small fraction over cost price to cover the cost of targets.

The Club is enrolled with the Society of Miniature Rifle Clubs, and enjoys the privileges of that Society.

The formal opening of the Club took place on Friday, 9th October, and in future the range will be available for members on Friday evenings from 5 p.m. The rules, by-laws, etc., of the Club will appear in the new edition of the Clubs' Union Rules to be published shortly. Meanwhile, details may be obtained from the Hon. Secretary, E. Allen, or from myself and from notices posted in the Colonnade.

Yours, etc.,
G. L. BARNARD.

The Appeal

To the Editor of the GAZETTE

SIR,—I do not know whether it is too late to call attention to a paragraph in "Passim" of your 1st August number. You say, "a gift to the Appeal deserves special mention. Half-a-crown was brought by a lady who apologised for her delay in bringing it. . . . she had set the half-crown aside for the repair of her shoes."

Isn't there something rather odd about a hospital system that is prepared to be financed by such actions? Would we also be prepared to accept money put aside for the baby's milk; shoes are not so important as milk, perhaps, but leaking shoes may well mean more colds, greater liability to rheumatism and so forth. Are we not serving the wrong cause by accepting such money?

Yours, etc.,
T. O. GARLAND.

23, South Hill Park Gardens,
N.W.3.

Sport

Rugby

Guy's v. Coventry

ON Saturday, September 26th, Guy's were overwhelmed at Coventry by 4 placed goals, a dropped goal and 4 tries (36 points) to a try (3 points).

With the exception that Sharp deputised for Halamandres at full-back and Stanyon-Jaques resumed at scrum-half, Guy's fielded the same side which was defeated by Catford Bridge.

For the first time this season Coventry had their pack at full strength, and their regular back division with Giles a notable absentee. However, Stocks, who deputised, played so well that it is doubtful whether the international could have improved on his display.

The weather was perfect and the ground in excellent condition when Guy's kicked off with the advantage of the sun at their backs. For the first twenty minutes they held their opponents, but, although they managed to keep their line intact, they had one or two narrow escapes. Roy Allen was injured very early, but pluckily carried on until five minutes from the interval, when he retired.

Guy's nearly gave away a penalty for feet up in the first minutes of the game, but Harris was wide with a long-range kick at goal.

After continual pressure near the Hospital's 25, Coventry set up a terrific attack and Kaye sailed past Sharp, but Dick forced him into touch near the corner flag. However, a few minutes later Kaye and Wheatley carried out a perfect passing movement, and the former flashed over the line for Harris to convert.

For some minutes Coventry pegged away and kept the Hospital on the defensive, but eventually a movement started by Allen carried play well into the home side's territory. The ball was sent very

smartly from Dick, Stewart to Douglas, but just as it appeared that Douglas would have a clear run in, Kaye came across from the other side of the field at terrific speed and bowled him into touch.

Guy's were soon driven back, and whilst endeavouring to find touch from his own 25, Davies kicked into the hands of Harris, who took careful aim before dropping a fine goal.

Coventry maintained the pressure, and a great movement through the centre caught the Hospital defence at sixes and sevens. Clarke cut through, side-stepped Stewart, and, when tackled by Dick, passed to Wheatley, who eventually gave to Kaye.

The latter was practically penned in by Sharp and Allen, but he deceived both and crossed for a try, which Harris just failed to convert.

Allen left the field, and immediately afterwards a strong Coventry attack developed in which the forwards and threes combined beautifully. O. Wheatley was tackled near the line, but his brother carried on the movement and scored a try, which Harris converted.

Guy's started the second half full of energy, and within two minutes Wright scored an unconverted try as the result of a movement initiated by Dick and Yerbury.

Coventry counter-attacked immediately, and from now on there was only one side in the picture. Following continual pressure on the Hospital line, R. W. Clarke broke through the centre and had no difficulty in forcing his way between the posts for Harris to add the goal points.

Defensive mistakes on the part of Stewart and Douglas let in Seaton, who scored easily in the corner. After this setback Guy's could not get going, and tries came from Coventry at frequent intervals. First Nichols accepted a kick from Stewart and scored without being tackled, and soon afterwards a brilliant movement started by Stocks was carried on by the forwards, who passed and interpassed at will, until Jones had a clear run in.

Near the end the whole side attacked and swept the Hospital defence before them. They should have scored on at least three occasions, but over-anxiousness spoilt several movements, and it was not until the last minute that H. Wheatley scored a try which Harris converted.

In the second half Yerbury was taken out of the pack and placed on the right wing, where he subdued Kaye, who during the first half was brilliant. In spite of the handicap, Nicholson hooked exceedingly well, but the ball was not heeled as quickly as it might have been.

Team.—E. C. Sharp; C. G. Wright, R. C. S. Dick (Capt.), I. McD. Stewart, D. H. Douglas; R. D. Allen, K. A. Stanyon-Jaques; H. H. Crabb, E. S. Nicholson, C. S. Darke, E. R. Davies, A. Forbes, P. Fletcher, R. O. Yerbury, C. F. Ziervogel.

The United Hospitals' Hare and Hounds

THE opening run will be held at Coulsdon on Saturday, October 17th. Coulsdon will be used throughout the season as the training headquarters.

A larger fixture list has been arranged than in previous years. For the first time the Club will be represented in the Universities' Athletic Union Championship.

Dr. H. Letheby-Tidy is the president, A. E. J. Etheridge (Guy's), captain, and D. J. Lyon (Guy's), secretary.

All who are interested in cross-country running or wish to make use of the Club for training purposes are cordially invited to Coulsdon.

Boating Club at Henley

AFTER winning the Inter-Hospitals Cup, it was suggested in a hilarious moment that the same eight might be entered for the Ladies or the Thames Cup at Henley. The tremendous enthusiasm with which the idea was greeted was unfortunately befogged in a temporary slight attack of amnesia—which, as all know, is one of the commoner sequelæ due to the narcotic effects of the laurels of victory, etc.

With scarcely three weeks before Henley, we were stirred to feverish activity by the rebirth of the idea, and eventually four members of the Eight were found who would definitely row; the idea of entering for the Wyfold Challenge Cup was put before the Clubs' Union and they very generously consented and gave their financial blessing.

After four outings with two orthodox oars on strokeside and two London oars on bowside, and with bow making his debut as steers, we experienced one or two quite thrilling moments when the boat actually ran level. Mr. Freebairn Smith's assistance was called in, and he rather ruthlessly changed round stroke and 3; this was a very radical alteration, as stroke had never rowed on bowside before and 3 had never stroked a boat before in his life, but the object was to have one orthodox and one London oar on each side, and to put 3 in a position where his habitual lateness would not be so detrimental. The night before, in the previous order, Mr. Smith had told us that the worst four at Henley would beat us by five lengths;

in the new order we were encouragingly told that we would only be three lengths behind!

We were very kindly lent a magnificent car, and on Tuesday, July 22nd, we set out for Bourne End, where we had been lent a bungalow.

Our daily routine was to leave for Henley after breakfast, a morning outing of long pieces of paddling from Hambleden to Marsh lock and back—about six miles—and then lunch at the "Stag and Huntsmen" at Hambleden, where we were looked after very well. The first half of our afternoon was spent lounging in the luxury of Phyllis Court, and we usually had our second outing before tea; this journey was about eight miles and taken up with rowing starts and pieces of rowing.

Our outings were seldom dull, mostly due to the keen interest we all took in helping bow steer the boat—not that he really needed any help, but there *were* one or two startling moments—once the boat completely disappeared into the bushes by the island, and another time we nearly hit the flagpole on the island above the Bridge.

We were very unfortunate in not having a coach; the two people we asked, after one outing each with us, were not seen again at Henley.

The first real encouragement we got was one day when we were asked to pace Christchurch during their course from the Barrier to Fawley. We were entirely surprised to find that we could not only keep level with them when we paddled firm at about 26, but that at times we had to paddle light in order to keep level with them.

We were striking about 38 at our starts, but were happiest when rowing 28-32. It was a great bone of contention that after a start the boat slid across on to bowside; only once did we actually hit the booms, and something of our keenness may be realised from the fact that three was still rowing on with tremendous vigour—and his blade the other side of the booms! This and other little controversial points and theories were usually the theme of our daily hate at tea; it was remarkable how argumentative one became—we spent the whole of one dinner time on the causes and treatment of constipation, and another on the psychological classification of individuals.

Our race with Thames was timed for 11.35 on the first day's rowing, and there was a strong headwind blowing, which was slightly in our favour, for we liked a low rate of striking, but they were almost 4 stone heavier than we. We did a slower start than usual and got off very scrappily, and by the island Thames were clear of us. We did not settle down till Fawley, when we were $1\frac{3}{4}$ lengths down, and with a good "ten" we gained a quarter of a length. We kept our length and were slowly going up on Thames, so that by the Trees we had gained another quarter-length, and finally we gained another half-length, so that Thames only won by three-quarters of a length.

The time of 8 minutes 40 seconds does not sound very inspiring, but actually it was the fastest fours time of the day. It was a grand race, but a bit disappointing getting so near to beating them after such a miserable start; however, when Mr. Freebairn Smith expressed his surprise and told us that he had expected a three-lengths' lead by Fawley and a paddle home for his crew, we were considerably cheered—especially when we remembered his last encouragement to us on the Tideway.

The two main (maybe the only two) points in our training to which we did adhere were—plenty of good food and plenty of sleep. Unfortunately, our desire to row the boat up to Henley was frustrated, otherwise we would have incorporated Steve Fairbairn's maxim, "Mileage makes champions."

Henley was probably this year the scene of a greater diversity of rowing styles than ever before, particularly in eight-oared rowing; we were convinced more forcibly than ever before that a mixture of the two hoary "antagonists," Fairbairnism and orthodoxy, is the most practical style—consisting of the hard Fairbairn beginning, here anatomically more advantageous than orthodoxy, and the long sitting-up orthodox finish, physiologically more correct than that advocated by Mr. Fairbairn. The Hospital Eight usually manages to get quite a good beginning, but seldom in the last four years has a Guy's Hospital Eight had both a hard beginning and a long firm finish; it is essential now at the start of a fresh year's rowing to realise this need of concentration on the finish of the stroke. With this in view it would be an excellent idea to get out regularly two fours composed of members of the Eight from the very beginning of the rowing year.

The crying need at the moment is for a good enthusiastic coach who is prepared to take the Hospital crews throughout the whole year.

Wyfold Four

Bow and steers	E. R. Roseacre	10 st. 8 lb.
Two	J. P. Henry	9 st. 13 lb.
Three	C. D. Cormac	13 st. 1 lb.
Stroke	J. W. S. Harvey	11 st. 6 lb.

Medallists and Prizemen

MEDICAL SCHOOL

Open Junior Science Scholarship—H. A. Rowley, scholarship (£100); P. Harvey, exhibition (£50).

Confined Junior Science Scholarship (£100)—A. F. Rushforth.

Epsom Scholarship (entitling the holder to free Medical Education)—C. L. T. McClintock.

Edgcumbe Prize for Junior Science—R. A. Gill, G. E. McFall, bracketed equal.

Junior Proficiency Prizes—D. C. Lewin, H. F. Lunn, bracketed equal (£17 10*s.* each); A. D. Bell (£5).

The Hilton Prize for Dissections (£5)—O. C. Fung, prize; E. R. Davies, certificate.

The Michael Harris Prize for Anatomy (£10)—D. C. Lewin, prize; H. A. Lee, certificate.

The Wooldridge Memorial Prize in Physiology (£10)—H. F. Lunn.

The Golding Bird Medal and Scholarship in Bacteriology (£29)—E. B. French, medal and scholarship; A. W. Taylor, certificate.

The Beaney Prize for Pathology—T. H. Shire, prize (£34); R. H. S. Thompson, prize (£10).

The Leonard Lubbock Prize for Clinical Pathology (£10)—E. B. French, prize; B. G. A. Lilwall, certificate.

The Treasurer's Medal and Prize for Clinical Medicine—T. H. Shire.

The Treasurer's Medal and Prize for Clinical Surgery—T. H. Shire.

The Charles Oldham Prize in Ophthalmology (£30)—S. H. Raza.

The Charles Oldham Prize on the Neurological Aspects of Ophthalmology (£30)—G. E. Yardley.

University Entrance (British Universities) Scholarships—S. H. Llewellyn Smith, scholarship (entitling the holder to free Medical Education for three years); E. B. G. Reeve, exhibition (£60).

DENTAL SCHOOL

Open Junior Science Scholarship (£160)—H. A. Hall.

Epsom Scholarship (entitling the holder to free Dental Education)—D. P. Finnegan.

Second Year's Prize in Dental Subjects (£10)—J. C. Coe.

Examination for the Prize in Anatomy and Physiology, General and Special (£10)—K. P. Liddelow.

Newland-Pedley Medal and Prize for Operative Dentistry—J. C. Robertson.

Final Year's Prize in Dental Subjects (£10)—C. G. Wright, prize; J. L. Harrington, certificate.

Entry of Students, October, 1936

Medical

Name	*School or College*	*Year*
Amiel, G. J.	Raine's Foundation	2nd Year.
Ball, T. M.	Charterhouse	1st M.B.
Bockner, S. H.	Polytechnic, Regent Street	1st M.B.
Briggs, J. E.	Arnold School, Blackpool	1st M.B.
Burnford, D. W.	St. Paul's and Jesus College, Cambridge	3rd Year.
Bush, R. A.	Dulwich	1st M.B.
Cardew, P. N.	Westminster	1st M.B.
Carnegie, D. M.	Rugby	1st M.B.
Chase, G. H. G.	Oundle and Christ's College, Cambridge	4th Year
Cook, R. R. P.	Trent College	1st M.B.
Corsane, C. H.	Victoria College, Jersey	1st M.B.
Counsell, P. B.	Latymer Upper School	1st M.B.
Craig, R. A.	Epsom	2nd Year.
Crook, D. H.	Mill Hill	1st M.B.
Dave, C. M.	Allahabad University	2nd Year
Davies, G. J. L.	Llandovery	3rd Year.
Davis, P. J. R.	Tonbridge and St. John's, Cambridge	4th Year.
Dick, H. P.	Charterhouse and Trinity College, Cambridge	4th Year.
Eastes, C. N.	Kent College Canterbury	1st M.B.
Edward, P. W.	Bradfield College	1st M.B.
Eve, J. S.	Edinburgh Academy and Emmanuel College, Camb.	4th Year

Name	School or College	Year
Figgis, M. M.	Uppingham	1st M.B.
Fowler, B. J.	King's Schools, Peterborough	2nd Year
France, G. G.	Uppingham and Caius College, Cambridge	4th Year.
Frank, B. L.	Austria	2nd Year
Heap, B. M.	Selwyn College, Cambridge	4th Year
Hind, A. W.	Merchant Taylors	2nd Year.
Holman, J. C.	Eastbourne College	2nd Year.
Hopper, P. W.	Archbishop Holgate's, York	2nd Year
Hughes, A. C. C.	Clare College, Cambridge	4th Year
Hutchinson, M. P.	Eastbourne College	1st M.B.
Jones, E. D. C.	Dulwich	1st M.B.Camb.
Jones, H. P.	University College of Wales, Aberystwyth	2nd Year
Joyce, H. L.	Newport High School	2nd Year
Kustow, B.	Chelsea College	1st M.B.
Koonvisal, T.	Trent College	1st M.B.
Kynaston, R. V. F.	Bedford	2nd Year
Lawrence, W. J.	Pembroke College, Cambridge	4th Year
Lewis, W. J.	Pembroke College, Cambridge	4th Year
Lillywhite, W. H.	University College, Cardiff	1st M.B.
Lloyd, G. H. T.	Wycliffe College, Stonehouse	1st M.B.
MacDonald, I. M.	Bishops Stortford	1st M.B.
Maclean, K. S.	Clare College, Cambridge	4th Year
Maile, W. D. B.	Downside and Pembroke College, Cambridge	4th Year
Manning, F. R. C.	Tonbridge	2nd Year
Mars, P. E.	Transvaal High School	1st M.B.
Martin, J. K.	Leighton Park School, Reading	1st M.B.
Mathewson, J. G.	Downside and Pembroke College, Cambridge	4th Year
May, M. J.	Gravesend County	1st M.B.
Morrell-Thomas, P.	Rossall and Jesus College, Cambridge	2nd Year
Munden, J. M.	Cheltenham	1st M.B.
Mundle, M. C.	St. Catherine's College, Cambridge	4th Year
Musgrove, J. B.	Private	1st M.B.
Nelson, D. S.	Canford School	1st Year
Neville, R. C.	Whitgift and Queen's College, Oxford	4th Year
Ordish, H. B. F.	Epsom	1st M.B.
Osmond, H. F.	Haileybury	1st M.B.
Pinder, G. W.	Emmanuel College, Cambridge	4th Year
Porter, W. A.	Epsom	1st M.B.
Pritchard, L. F. G.	Blundells	1st M.B.
Renton, T. W.	Dulwich	1st M.B.
Rewell, R. E.	Whitgift	2nd Year
Rieck, A.	University of Cape Town	2nd Year
Ripman, H. A.	Rugby	1st M.B.
Robb, J. W.	Maidenhead County Boys' School	1st M.B.
Rowlandson, R.	Clare College, Cambridge	4th Year
Rowlett, B.	Highgate	1st M.B.
Sechiari, G. P. A.	Selwyn College, Cambridge	4th Year
Smith, A. L. H.	King's College, London	2nd Year.
Smith, P. A. J.	Tewkesbury Grammar	2nd Year.
Stead, J. S.	Dauntsey's	2nd Year.
Stock, S. D.	Radley	1st M.B.
Talfourd-Jones, P.	Westminster and Emmanuel College, Cambridge	3rd Year.
Tennison, R. G.	Hymer's College, Hull	1st M.B.
Thomas, A. E.	Christ's College, Brecon and St. Catherine's, Camb.	4th Year.
Thomas, L. J.	Queen Elizabeth's, Carmarthen	1st M.B.
Thomas, D. I.	Whitland County	1st M.B.
Thomas, R. G.	Wrekin College and Brasenose College, Oxford	4th Year.
Tolhurst, St. J. M. A.	Wellington	2nd Year.

Name	*School or College*	*Year*
Tucker, E. J.	Grammar School, Shaftesbury	1st M.B.
Van der Westhuizen, J. C.	Heidelburg	1st M.B.
Van Perlstein, T. E.	King's College School, Wimbledon	1st M.B.
Vidot, C. C.	Mount St. Mary's College, near Sheffield	1st M.B.
Vine, S. M.	Maidstone Grammar	1st M.B.Camb.
Ward, D. A. L.	Uppingham	1st M.B.Camb.
Waters, I. R.	Llandovery	1st Year
White, D. A.	Epsom	1st M.B.
Wilks, J.	Tonbridge	1st M.B.
Williams, D. H. J.	Llandyssul County	1st M.B.
Williams, J. A.	Balham Modern	2nd Year.
Wright, L. P. J.	Alleyn's	1st M.B.

Dental

Name	*School or College*	*Year*
Argo, J. K.	St. Dunstan's	1st B.D.S.
Barber, M.	Elizabeth College, Guernsey	Pre-Medical.
Barnes, K. F.	Tonbridge	Pre-Medical.
Barnett, K. A.	Polytechnic, Regent Street	Pre-Medical.
Bentley, J. F. R.	Whitgift	1st Year.
Berry, O. R.	Merchant Taylors	1st B.D.S.
Blackburn, G. R.	Bedford	Pre-Medical.
Boyd, J. A.	Seaford College	Pre-Medical.
Brown, P. F. E.	Beaumont College, Windsor	1st B.D.S.
Buck, H. A.	Southend High School	1st Year.
Buxton, J. D.	Cardinal Vaughan School	1st B.D.S.
Davies, D. K. L.	Llandovery	1st Year.
Elliott, G. F.	Brighton College	Pre-Medical.
Evans, W. O. R.	Denstone	Pre-Medical.
Fletcher, G. G. T.	Lancing	1st B.D.S.
Flitton, E.	Perse School, Cambridge	Pre-Medical.
Ford, W. J.	Hymer's College, Hull	1st B.D.S.
Forrester, J. H.	County School for Boys, Bromley	Pre-Medical.
Gill, D.	Lindisfarne College, Westcliff-on-Sea	Pre-Medical.
Gimson, A. P.	Streatham Grammar	Pre-Medical.
Gresham, F. A.	Christ's College, New Zealand	1st Year.
Hanson, J. M.	Worksop	Pre-Medical.
Harvey, D. A. S.	City of London	Pre-Medical.
Hayward, A. J.	Bec School, Tooting	1st B.D.S.
Horne, Eric	Caterham	1st B.D.S.
Irwin, J. A.	St. Bees	Pre-Medical.
Jones, E. W. O.	Drayton Manor School	1st Year
Jones, J. E.	Dynevor Secondary, Swansea	Pre-Medical.
Lomax, R. G.	Grey High School, Port Elizabeth	Pre-Medical.
Marks, M.	St. Paul's	Pre-Medical.
Martin, L. G. C.	Portsmouth Grammar	1st Year.
Matthews, R. E.	Maidstone Grammar	1st B.D.S.
Murch, C. P.	King's School Canterbury	Pre-Medical.
Morris, G.	Swansea Grammar	Pre-Medical.
Newns, A. A. B.	Christ's Hospital	Pre-Medical.
Oakes, W. L.	Bedford	Pre-Medical.
Orchover, J. A.	Central Foundation	1st Year.
Peters, P. A.	Stoneyhurst and Jesus College, Cambridge	Pre-Medical.
Power, N. A.	Charterhouse	1st B.D.S.
Pugh, B. G.	Llandrindod Wells County Secondary	1st B.D.S.
Purnell, J. A. W.	Epsom	Pre-Medical.

Name	School or College	Year
Rees, D. D. L.	Denstone	Pre-Medical.
Renouf, W. L.	Jersey Modern School	Pre-Medical.
Roberts, D. G. E.	Pontypridd Intermediate	1st B.D.S.
Robson, F. F.	King Henry VIII School, Coventry	1st Year.
Rose, J. P. I.	University College School	Pre-Medical.
Sanders, W. B.	St. Edward's, Oxford	Pre-Medical.
Smith, E. S.	King Edward VII's School, King's Lynn	2nd Year.
Staines, F. H.	Hurstpierpoint	1st B.D.S.
Swann, G. F.	Beaumont College, Windsor	1st Year.
Timmins, J. C.	Ottershaw College	Pre-Medical.
Wheatley, R. A	McGill University	4th Year.
Wright, D.	City of London	1st B.D.S.
Young, W. A. M.	Wanstead High School	Pre-Medical.

Hospital Information, etc.

Papers by Guy's Men

W. M. Mollison. Acute streptococcal infections of the middle ear. *Brit. Med. Jour.*, 1936, ii, 615.

L. R. Broster. The adrenal cortex—eight years' experience on the adrenal glands. *Med. Press and Circ.*, 1936, cxciii, 264, 285.

J. V. Braithwaite. Myopathy. *Proc. Roy. Soc. Med.*, 1936, xxix, 1439 (Sect. Study Dis. Childr.).

A. H. Douthwaite. Lumbago and sciatica. *Lancet*, 1936, ii, 326.

Appointments

J. U. Human, Anæsthetist, Metropolitan Ear, Nose and Throat Hospital, Fitzroy Square, W.1.

J. L. Bates, appointed Resident Assistant Physician at Ruthin Castle.

Russell J. Reynolds, appointed Hunterian Professor, R.C.S., 1936-37. Examiner in Radiology, Conjoiut Board, London; Chairman of British Delegates to the International Congress of Radiology, Chicago, 1937.

Marriages

EVANS—JENKINS.—On August 5th, 1936, at the Tabernacle Chapel, Aberystwyth, William David Percival Evans, L.D.S., to Mary Ina Margaret Jenkins, daughter of the late Capt. G. Jenkins and of Mrs. Jenkins, New Quay, Cardiganshire.

PUGH-JONES—COLE.—On Saturday, September 26th, 1936, at the Congregational Church, High Street, Lewisham, Elwyn Pugh-Jones, son of Mr. and the late Mrs. Pugh-Jones, of Lewisham, to Vera Marjorie, daughter of the late Mr. and Mrs. Cole, of Catford.

Death

DALGLEISH.—On the 29th September, 1936, at St. John's Hill, Woking, Dorothy Brind Dalgleish (née Waldron), wife of Ian Scott Dalgleish.

EDS. {M.A.P. A.G.W.H.

MEDICAL SCHOOL TIME TABLE, WINTER TERM, 1936.

CHEMISTRY, PHYSICS AND BIOLOGY.

Course	Subject	Lectures	Place	Practical Classes	Place
Pre-Medical Conjoint	Inorganic Chemistry	Tues. & Thurs. 10 a.m. First Lecture, Thurs., Oct. 8, at 10 a.m.	Chemistry Theatre	Thurs. 2–5 p.m. Fri. 10–1 p.m. First Class, Thurs., Oct. 8, at 2 p.m.	Chemistry Laboratory
	*Elementary Organic Chemistry	Thurs. 2–3 p.m. & Fri. 12–1 p.m. First Lecture, Thurs., Oct. 15, at 2 p.m.	Chemistry Theatre		
	Physics	Tues. & Thurs. 11 a.m. and Tues. at 12 noon. First Lecture, Thurs., Oct. 8, at 11 a.m.	Class Room IV	Mons. 10–1 p.m. and 2–5 p.m. First Class, Mon., Oct. 12 at 10 a.m.	Physics Laboratory
	Biology	Weds. 9.30 a.m., Thurs. 12 noon, Sat. at 9.30 a.m. First Lecture, Wed., Oct. 7 9.30 a.m.	Anatomical Theatre Physiological Theatre	Tues. and Fri. 2–4 p.m. First Class, Fri., Oct. 9, at 2 p.m.	Biology Laboratory
M.B. London	Chemistry	Tues. & Thurs. 10 a.m. First Lecture, Thurs., Oct. 8, at 10 a.m.	Chemistry Theatre	Mons. 10–1 p.m., Tues. 2–5 p.m. First Class, Tues., Oct. 6, at 2 p.m.	Chemistry Laboratory
	Physics	Tues. & Thurs. 11 a.m., and Tues. at 12 noon. First Lecture, Thurs., Oct. 8, at 11 a.m.	Class Room IV	Thurs. and Fridays 2–5 p.m. First Class, Thurs. Oct. 8. at 2 p.m.	Physics Laboratory
	Biology	Weds. 9.30a.m., Thurs. 12 noon, Sat., 9.30 a.m. First Lecture, Wed., Oct. 7, 9.30 a.m.	Anatomical Theatre Physiological Theatre	Weds., Fridays & Sats. 10.30–1 p.m. First Class, Wed., Oct. 7, at 10.30 a.m.	Biology Laboratory

* Only for those Students taking the Pre-Medical Examination in December, 1936.

MEDICAL TIME TABLE—*continued.*

ORGANIC CHEMISTRY, ANATOMY, PHYSIOLOGY, AND PHARMACOLOGY.

Subject	Days and Times	Place	First Class or Lecture
Organic Chemistry (2nd M.B., Part I)	Lectures—Mons. 1.45, Weds. 11.30 a.m. Pract.–Mons. 2.45–5. Thurs. 10-1 p.m.	Chemistry Theatre Chemistry Laboratory	Lectures—Wed., October 7 Practical—Thur., October 8
Anatomy	Elementary Lectures— From Oct. 7-23 inclusive—Mon. 9.30 a.m., Wed. 10.30 a.m., Thurs. 2.0 p.m., Fri. 9.30 a.m. Thereafter—Wed. 10.30 a.m., Fri. 9.30 a.m.	Anatomical Theatre	Wednesday, October 7
	Senior Lectures (Neurology)— Tues. and Thurs. at 9.30 a.m.	Anatomical Theatre	Thursday, October 8
	Revision Classes— To be announced later	Demonstration Theatre	To be announced later
	Demonstrations— To be announced later	Demonstration Theatre	To be announced later
	Practical Anatomy— Daily from 9.30 a.m. to 5 p.m.	Dissecting Room	Tues., Oct. 6 at 10 a.m.
	Primary F.R.C.S.— See special notices on notice boards		
	Normal Histology Tues. at 2 p.m.	Histology Laboratory	Tuesday, October 13
Physiology	Elementary Lectures— Tues. and Thurs. 9.30 a.m.	Physiological Theatre	Tuesday, October 27
	Senior Lectures— Mon. 9.30 a.m., Wed. 10.30 a.m., Thurs. 2 p.m.	Physiological Theatre	Wednesday, October 7
	Elemen. Exper. Physiology (Jun. Students)— Tues. 10.30 a.m. to 12.30 p.m. and Tues. 2–4 p.m.	Experimental Physiology Laboratory	Tuesday, October 13 at 10.30 a.m.
	† Adv. Chemical Physiology (Sen. Students)— A Group, Mon. and Fri. 10.30–12.30. B Group, Mon. and Fri. 2–4 p.m.	Chemical Physiology Laboratory	Friday, October 9
	† Respiration (Sen. M.B. Students only)— B Group, Mon. 10.30–12.30 p.m. A Group, Mon. 2–4 p.m.	Respiration Laboratory	Monday, October 12
	Clinical Physiology (All Students in Final Six Months of Study)— Thurs. 12 noon to 1 p.m.	Clinical Theatre	Thursday, October 15
Pharmacology	Lectures—Mons. 4 p.m. Fri. 1.15 p.m. Demonstrations, Revision Classes } To be announced later.	Physiological Theatre Pharmacology Labor'ty	Friday, October 9 To be announced later.

†Students will be arranged into their respective Groups at the First Senior Lecture.

SUBJECTS FOR FINAL EXAMINATION. MEDICAL.

Subject	Lecturer	Days and Times	Place	First Class or Lecture
Applied Anatomy	Professor Johnston	Wednesdays at 12 noon	Anatomical Theatre	Wednesday, October 7
Forensic Medicine	Dr. Ryffel	Fridays at 4.30 p.m.	Class Room 3	Friday, October 9
General Pathology	Professor Wright	Lectures—Tues., Thurs. and Fridays at 12 noon Practical—Daily at 9 a.m.	Pathol'cal Theatre Path'cal Class Room	Tuesday, October 20 Wednesday, October 21
Medical Pathology	Dr. Campbell	Thurs. at 9.30 a.m. and Fridays at 4 p.m.	Museum	Friday, October 9
Surgical Pathology	Mr. Davies-Colley	Mon. and Thurs. at 5 p.m.	Museum	Thursday, October 8
Operative Surgery		To be announced later.	Op. Surg Class Rm.	
Ophthalmology	Mr. Morgan	Thursdays at 4 p.m.	Anatomical Theatre	Thursday, October 15
Radiology	Mr. Worth	Saturdays at 9.30 a.m.	Anatomical Theatre	Saturday, October 10

DENTAL SCHOOL TIME TABLE, WINTER TERM, 1936.

*PRE-MEDICAL COURSE.

CHEMISTRY, PHYSICS AND BIOLOGY.

Subject	Lectures	Place	Practical	Place
INORGANIC CHEMISTRY	Tuesdays and Thursdays at 10 a.m., commencing on Thursday, October 8th.	Chemistry Theatre	Thursdays 2 to 5 p.m., and Fridays 10 a.m. to 1 p.m., commencing on Thursday, October 8th	Chemistry Laboratory
†ELEMENTARY ORGANIC CHEMISTRY	Thursdays at 2 p.m. and Fridays at 12 noon, commencing on Thursday, Oct. 15th.	Chemistry Theatre		
PHYSICS	Tuesdays and Thursdays at 11 a.m., and Tuesdays at 12 noon, commencing on Thursday, October 8th	Class Room IV	Mondays 10 a.m. to 1 p.m., and 2 to 5 p.m., commencing on Monday, October 12th	Physics Laboratory
BIOLOGY	Wednesdays 9.30 a.m., Thursdays at 12 noon. Saturdays at 9.30 a.m. Commencing on Wed. Oct. 7th	Anatomical Theatre Physiological Theatre	Tuesdays and Fridays 2 to 4 p.m., commencing on Friday, October 9th	Biology Laboratory

*B.D.S. Students see Medical Time-Table. †Only for Students taking the Pre-Medical Examination in Dec., 1936.

SUBJECTS FOR FIRST PROFESSIONAL EXAMINATION.

Subject	Lectures	Place	Practical	Place
ANATOMY	(1) *Junior Lectures*— From Oct. 7–23 inclusive Mondays 9.30 a.m., Wednesdays 10.30 a.m., Thursdays 2 p.m., Fridays, 9.30 a.m. Thereafter — Wednesdays 10.30 a.m., Fridays 9.30 a.m., commencing on Wednesday, October 7th. (2) *Demonstrations*— *(*a*) Bones— To be arranged later. *(*b*) Soft Parts— To be arranged later.	Anatomical Theatre Anatomy *Demonstration* Theatre Anatomy Demonstration Theatre	Additional demonstrations will be arranged to take the place of Practical work.	Anatomy Demonstration Theatre
PHYSIOLOGY	Tuesdays and Thursdays 9.30 a.m., commencing on Tuesday, October 27th.	Physiological Theatre	Thursdays 10.30 a.m. to 12.30 p.m., commencing on October 8th	Experimental Physiology Laboratory
HISTOLOGY	Thursdays at 2 p.m., commencing on October 15th.	Histology Laboratory		
†DENTAL METALLURGY ..	Mondays and Wednesdays at 10 a.m.. commencing on Monday, October 12th.	Chemistry Theatre		
†DENTAL PROSTHETICS	Fridays, at 9.30 a.m., commencing on October 9th.	Pathological Theatre	Fridays at 1.45 p.m., commencing on October 2nd	1st and 2nd Years' Laboratory
DENTAL ANATOMY ..	Thursdays at 2.15 p.m. commencing on October 15th.	On October 15th and 22nd the Lectures will be given in the Pathological Theatre; thereafter in the Anatomical Theatre.		
NORMAL DENTAL HISTOLOGY ..	Tuesdays at 2 p.m., commencing on October 6th.	Pathological Theatre	Tuesdays at 2.30 p.m., commencing on October 6th	Pathological Class Room

* N.B. —Students in their Second Term of Human Anatomy must attend (*a*), and may attend (*b*) if they so desire.
Students in their Third Term of Human Anatomy must attend *both* (*a*) and (*b*).
† Only for Students taking the First Professional L.D.S. Examination, Part I, in February or May, 1937.

SUBJECTS FOR SECOND AND FINAL EXAMINATION

Subject	Lecturer	Days and Times	Place	First Class or Lecture
PATHOLOGY	Professor Wright	Lectures — Wednesdays at 12 noon Practical—Mondays at 3 p.m.	Pathological Theatre Pathological Class Room	Wednesday, October 7th. Monday, October 12th.
GENERAL SURGERY	Mr. Eckhoff	Mondays at 1.15 p.m. Tuesdays at 1.15 p.m. Fridays at 1.15 p.m.	Class Room IV Class Room IV Clinical Theatre	Friday, October 9th.
DENTAL PATHO-HISTOLOGY ..	Mr. Pritchard	Lectures—Tuesdays at 2 p.m. Practical—Tuesdays at 2.30 p.m.	Pathological Theatre Pathological Class Room	Tuesday, November 17th. Tuesday, November 17th.
DENTAL SURGERY ..	Mr. Doubleday	Tuesdays at 9.15 a.m.	Pathological Theatre	Tuesday, October 6th.

GUY'S HOSPITAL GAZETTE

A Journal of Medicine, Surgery, Dentistry and Hospital News.

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PASSIM

THE sum of money obtained from the Appeal has hitherto reached £125,305. Of this, £80,000 has been received through the further generosity of Lord Nuffield, and it is a gift not absolute but only on condition that the rest of the sum necessary for the reconditioning of the Hospital, namely £420,000, is subscribed by the public at large.

Should the public respond to the necessary extent, and it is a matter for prayer that it will do so, this splendid gift will be devoted to the rebuilding of the Nurses' Home. We publish elsewhere in this number a letter from Sir Alfred Beit, chairman of the Appeal Fund, on this matter.

A few statistics may possibly be of interest. During the week a number of collectors have been busy at the exhibitions of Hell Driving, organised by the Chrysler Car Company at Wembley, who have graciously allowed the Hospital facilities for collecting. On the Friday afternoon three thousand people were present, and the collectors between them raised £56 12*s*. 7*d*., or 4½*d*. per member of the audience. On the Saturday night there were three hundred collectors and an audience of fifty thousand; the sum raised was £113 12*s*. 1*d*., averaging ½*d*. per contributor. The total sum, £180 4*s*. 8*d*., represents a donation of 4/5*d*. per person. Though this may seem a somewhat disappointing response, we must be grateful for the large number of collectors who did their best in the short time—four or five minutes—allotted to them. Some collectors, according to crowds in which they worked, returned almost exclusively silver and notes, others with copper unrelieved. In addition to this sum, however, through the kindness of the Royal Automobile Club we are to receive almost the whole of the fees that accrued from the car-parking.

WE congratulate Mr. Frank Law on becoming a surgeon to the Royal Ophthalmic Hospital (Moorfields Eye Hospital). Mr. Law, a Middlesex man, came to us in 1934 on the retirement of Mr. Eason from the Visiting Staff, and it is with great pleasure that we note his new distinction.

VISCOUNT DAWSON OF PENN distributed the prizes and delivered the address at the opening of the Winter session of the Medical School on Monday, October 12th. The Hospital was deeply sensible of the honour conferred upon it and of Viscount Dawson's kindness in finding the time to come. In a happy and provocative speech Viscount Dawson, whose distinguished appearance and urbane manner endeared him to the audience, gave us food for thought and a stimulating afternoon. We are most grateful for permission to publish the speech.

WE congratulate the following on their appointments :—

Obstetric Residents—
To Mr. Cook and Mr. McNair—Mr. J. E. Elliott.
To Mr. Chapple—Mr. J. A. T. Hammond.

House Physicians—
To Dr. Hurst—Mr. C. S. Darke.
To Dr. Mutch—Mr. G. N. Wright.

House Surgeons—
To Mr. Hughes—Mr. H. R. S. Harley.
To Mr. Bromley—Mr. D. F. Freebody.

House Physician to the Children's Department—
Mr. E. Gillett.

House Surgeon to the Ear, Nose and Throat Department—
To Mr. Mollison—Mr. E. Gill Carey.

Out-Patient Officers—
Mr. J. M. Brown.
Mr. G. D. Channell.
Mr. J. A. T. Griffiths.
Mr. W. M. Philip.

Assistant House Surgeons—
To Mr. Grant Massie—Mr. G. O. Jelly.
To Mr. Ogilvie—Mr. F. R. Malan.
To Mr. Eckhoff—Mr. R. C. Neville.
To Mr. Brock—Mr. B. W. Hunt.

Clinical Assistants—
Mr. P. M. Davies.
Mr. W. J. C. Dunham.
Mr. S. Jackson.
Mr. A. J. Smith.
Mr. S. Woolstone.
Mr. G. E. Yardley.

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IT was a tedious drive to Wembley, if one did not go by one of the official buses, to see the demonstration of Hell Driving organised by the Chrysler Car Company at the Stadium. Once arrived there, the vast stands were, of course, but partly filled. The dimness of the lighting, the height of the structure, and the occasional pools of light from the arc lamps, the sense of the crowd awaiting something, were somehow suggestive of the arrival of a boat train at midnight at some terminus. Soon, however, with the beginning of the performance this illusion gave place to a more lively consciousness of the moment. There were the usual wisecracks over the microphone as the drivers were introduced to us, and the cars, attaining alarming speeds in the arena, cornered miraculously and cleared strange obstacles, leaping from sloping boards and landing certainly on four wheels. Between these feats one looked around; one was reminded, surveying the dim banks of faces and the points of light, of Montague's description at the football match, "the striking of matches, now here, now there, but always somewhere, grew more brilliant as the twilight came on." One wondered if the cigarette ends, placed together, would reach from London to Llandudno.

In the interval before the high light of the evening the collectors were busy raising money for the Appeal. Everywhere was the rattle of money-boxes, with white coats among the crowd. Donors seemed willing and plentiful enough. Then there was the drive through fire. A structure of wooden boards smeared with crude oil was ignited and one of the saloon cars driven at it. For a moment the car was silhouetted against the flames as it rose up a slight incline. Then, like the horse through the hoop in our less sophisticated days, it took off into the air and burst the barrier with a bang. For a second we thought that it had blown up, and expected to see the pieces fly and the burst tank ascend like a scroll into the heavens, but then we saw that it had already reached the end of the arena, whence, turning with a scream, it returned to the starting point. In the meantime an army organised by Messrs. Minimax played their Minimaces on the flames. And then we were shown how to turn cars over. This we saw done at a speed of, one supposed, about fifty miles an hour. The first car was righted by attendants, and immediately was self-started and driven away again, the sand in which it had been overturned streaming from its roof; the second was driven with such skill that, after a somersault, it was landed on four wheels and was still in running order. We had been warned over the microphone not to attempt these feats on the way home unless we had a Chrysler.

The end of the evening found us watching the innumerable money-boxes being carried from the buses to the counting house. They appeared to be of considerable weight, and it is hoped that these later collections, though the figures are not available at the time of going to press, exceeded those of the previous week. We have to thank Messrs. Chrysler Motors for a stimulating evening.

Prize Distribution and Opening Address

By The Right Honourable The Viscount Dawson of Penn, P.C., G.C.V.O., K.C.B., K.C.M.G., M.D., President of the Royal College of Physicians, on Monday, 12th October, 1936

Lord Nuffield (Hon. Treasurer), in the Chair

THE CHAIRMAN: Ladies and Gentlemen, In introducing Lord Dawson to you to-day it is quite unnecessary for me to tell you anything about his position and his great achievements; it would simply be painting the lily. I am sure we are very pleased to have him here to-day, and no doubt he is pleased to come, in order to present the prizes. I have no doubt everyone in this room is very pleased that His Majesty saw fit to confer upon him the honour which he now holds. (Applause.) The work which Viscount Dawson has done is so well known to everyone that I need not detail it. But I would like to say this, which is perhaps of more worth than anything else, that he is one of Nature's gentlemen. (Cheers.)

I now call upon Lord Dawson to present the prizes.

VISCOUNT DAWSON, having presented the prizes, delivered the following address on—

THE DOCTOR AND HIS HORIZON

Lord Nuffield, Ladies and Gentlemen, may I begin by thanking you for the generosity of your reception?

It so happens that the privilege which falls to me of standing in this place coincides, in time, with the great Guy's Appeal for adequate endowment to continue the work of this Hospital with efficiency. Small wonder that buildings more than two hundred years old should need replacement. Such are not only needed in the interests of generations of patients who pass through its wards, but, and even more urgently because Guy's, as one of the great teaching hospitals, is responsible for the making of doctors and nurses, who will serve communities the country over, and therefore needs the best equipment if these services are to maintain that high standard of worth which it has always been the privilege of Guy's to produce. Any money given, therefore, in response to this Appeal not only benefits this Hospital, but is as seed which multiplies a hundredfold. We have been told, by propaganda so searching that escape from it is impossible, that " Guy's treasure chest is empty." It is of national importance that it should be filled.

Before leaving this important question of funds let me remind you that no one understands the empty treasure chest better than the medical student. One moment to recall a period of my own student days. Three of us shared diggings—we were seldom in funds together; the one who received supplies kept the others. It was an experiment in Communism, but with a light-hearted good nature which Communism seems unable to engender. If we were all out of funds and credit ebbed too far, a small tin of sardines as the sole ration for breakfast was the red flag of danger, and then we had to appeal for funds —like Guy's.

And now to our immediate purpose, the School. Very warmly do I congratulate both those who have won prizes and those who have struggled to do so. As a caution to the former and a solace to the latter, may I recall that the horse which is first round Tattenham Corner does not always hold the same place at the winning post. Let me remind the freshmen how great is the tradition they inherit; names like Bright, Addison, Astley Cooper, Hodgkin are their proud possession; and the tradition is a living one, for this School has recently given Cambridge a Regius Professor, St. Bartholomew's a Professor of Medicine, and your Senior Physician is the chosen Harveian Orator. It is difficult to say which part of Dr. Hurst his friends admire most, his talents or his undaunted courage.

Ladies and Gentlemen, in the time which is at our disposal I can only put before you certain reflections which fall within, but cannot embrace, the title of my address. Surely there is no profession which takes so big a toll of all the attributes of a man, and that at one and the same time. Body, mind and spirit are often in full and simultaneous exercise. I am to talk of the " Doctor and his Horizon."

First, the doctor himself. The body—this should be strong, resilient, apt to endure. To be confident and cheerful under stress, to judge well and act strongly demand a body that does not tire. If you are weary and feel abdominally, you cannot think imperially, or even hopefully. The medical student should himself stand forth as an example of what the body should be. And that you agree with me in this opinion was shown just now at the distribution of prizes, because I noticed that your affection for sport was greater than your affection for learning. I am inclined to agree with those who regard physical education amongst students as an obligation, and this is the more important now that public opinion is beginning to awaken to the fact that all is not well with the physique of the nation, and that systematic cultivation of the body is as much a matter of national concern as is education of the mind. Personal benefits apart, students would learn by the avenue of experience the study of movement and poise and the basis of treatment by physical exercises and by manipulation, branches of therapeutics sadly in need of intelligent development.

Here it is appropriate to correct a certain confusion between, on the one hand, physical education and, on the other, sport and physical recreation. In physical education, movements are designed to educate the body in structure and function. It belongs to school hours, has its allotted place in the curriculum, and is directed by the teacher. If education is needed to get the best out of a girl's or boy's mind, it is unreasonable to expect that it is not equally needed to make the best of her or his body. On the other hand, sports and physical recreation belong to our leisure. Here stands forth the joy of effort in playing the game, and with this the " team spirit," self-control and leadership. Physical education and physical recreation are complementary, and, though distinct in purpose, can overlap. Thus physical education makes use of the game, even in school hours, wherever it is possible to do so. On the other

hand, proficiency in games often exists with defects of frame or function. A young man or woman may be excellent at games and yet possess defects of structure of body boding ill for his or her future fitness. These physical education would prevent.

In youth you have such an amount of reserve force that these defects do not operate seriously to your disadvantage, but when you arrive at middle age—which you regard as old age—you begin to feel the effect of those shortcomings. Many and many a breathless bronchitic in middle life owes his trouble to some physical defect which was not corrected in his youth. And if it falls to your lot to have an operation, it will greatly aid your recovery if your thorax and abdomen have been taught how to breathe. In fact, we need to combine physical education and physical recreation. Niels Bukh, a Dane, a pioneer of physical culture in Scandinavia, used education by fundamental gymnastics as a basis, and athletics, games and folk-dancing as a means of its expression.

This problem of rearing a fit race transcends in importance all our domestic questions. We forget that formerly Nature, by the rough method of high death-rate, eliminated a large proportion of weaklings in the community. To-day, in virtue of increasing medical knowledge and a quickened social conscience, we have cut down the death-rates, thereby enabling to survive increasing numbers, not only of the good stock, but also of the bad stock, and the latter is a dead weight on the community, and when it propagates does damage to succeeding generations. No policy which aims at raising the national physique can succeed which does not take cognisance of these facts.

I now pass to education of the mind. A sound knowledge of biology, physics and chemistry is an essential foundation; without that foundation the study of medicine is as a house built upon the sand. For these we must depend on the school at 16 to 17 years of age. I can look back and recall how much I have been helped in my career by the fact that I took a Science Degree in chemistry, physics and physiology, and was once a teacher in these subjects. I remember, in my youth, the thrill of interest when Emil Fischer synthesised sugar, and again when the molecular relatives of urea and uric acid were evolved one by one. To-day a valuable group of drugs which bring us soothing and sleep have been built up on urea. And, in your day, is it not safe to prophesy that the exact structure of the protein molecule will come to light, and perhaps protein will be synthesised? Then what changes may unfold! Man, unable, like the lupin plant, to pick up nitrogen from the air, needs protein as his source of nitrogen, and therefore has resort to flesh food. If proteins can be turned out by chemical factories, how the vegetarians should rejoice, though for ordinary mortals we may expect the palate to continue to hold its beneficent sway.

Viewing the teaching in our medical schools, it is agreed that the branches of medical science are now so many that attempts to comprise them all within the curriculum must cease, and that those subjects which are retained must be rationed in their scope if the student's mind is not to be over-charged with uncorrelated facts so as to produce, not intelligence, but mental dyspepsia. In the past, anatomy illustrated the vice of mere memorisation, but to-day its teaching is more selective, and, with the aid of radiology, slow-motion films, and illustrations from orthopædic surgery, has become more alive. Amidst the many advantages which exist in your day there lurks this danger: owing to discoveries like television and the screen we get our information so readily, so lazily, that we are very apt to become a nation of impressionists. That will not do for medicine; it would only do for a cheap form of plausible practice, which is almost beneath contempt.

Should not the chief object of teaching be the training of the student's mind how to learn, how to think, and the objects of examinations to discover not so much the quantity, but rather the quality of knowledge, not so much what the student knows, but *how* he knows? I would give more marks for a wrong diagnosis well reasoned than for a right diagnosis ill reasoned. The former denotes immature judgment, the latter indicates an ill-trained mind. And will it not come about that for a good proportion of students the qualifying examination will be but a stage in their course, and that one or two further years will be devoted to original investigation or extended study, and that a higher qualification will be granted on the record of such work without the obligation to pass a regimented examination?

In clinical teaching I would plead that disease be not presented in stereotyped pattern; that is the rôle of the textbook. Bedside teaching offers good scope for the Socratic method, in which this School has excelled. For myself, no part of my work afforded me more satisfaction and instruction than Tuesday mornings in the wards, often prolonged till the dinner and Sister's appealing look caused a retreat.

In sickness does not every man claim his right to be ill in his own way? There man's fundamental individualism is unfolded. Thus it is that

when a student begins his work in the wards he enters a new world. Prior to that event his studies have been objective, the data constant, but now he is up against personality, with its infinite variations resulting from heredity and environment, and, maybe, cross currents of thought and anxiety. And though the student will investigate the morbid process by every means at his command, he will do so in relation to his patient, and the power to project himself into the mind of another is only to be acquired by the constant cultivation of a sympathetic understanding. And, be it remembered, illness is less standardised than it used to be, and for the reason that, speaking generally, the processes of disease are less violent and more slow in their incidence; and, on the other hand, the complexity, even the perplexity, of the life of to-day make the reactions of the patient more active, and therefore the picture of illness more variable. And so it is that in many illnesses and distempers (to use an expressive word), unravelling of the problem is the pressing need, and in comprehensive diagnosis lies the best treatment.

The doctor is concerned on the one hand with knowledge as such, and on the other with the application of that knowledge to human needs. In both directions his horizon is widening. Though we are at times faced with diseases which we are, alas, powerless to cure, there is never an occasion when we cannot bring help and solace.

Yet a longer view will show substantial and continuing progress in knowledge. I have only to mention typhoid, tuberculosis, diabetes, rickets, rheumatic fever, gout and the anæmias in illustration; and surgery, less limited to the removing of something, is entering a realm of constructive work conceived in the light of function. Indeed the signs are plain that your era will be fertile, and that the scattered flowers of new knowledge will be gathered by you into well-ordered gardens.

With the science of your daily work never standing still, you need to keep the open, but equally to avoid the plausible, mind; to beware of that running after the mere wondrous which, ever and again, leads the public astray, to worship one false god after another, dethroning old ones only to set up new ones in quaint succession. Medical societies and journals are the real instruments of progress. There new ideas are brought to light and judgment, there you learn the habit of the receptive mind, there to express your thoughts clearly. A doctor is a student till death, or, shall I say, when he ceases to be a student he dies.

Nothing is widening our horizon more than the development of preventive medicine. We are now concerned with the constructive health of those who are up and doing—children in the schools, workmen in the factories. It follows, therefore, that the work of doctors will expand in the sense of being educational, and this larger work of healing through teaching will require accommodation just as education requires schools. Likewise doctors must, in the interest of the community, take a more responsible part in plans for building up a healthy race. Let me urge you to think, realise, and convince others that our present piecemeal social policy, though well-intentioned, is unreasoned, that falling death-rates are only good in proportion as they denote the preservation of lives which are healthy enough to live and enjoy life, and effective enough to be workers and sound parents. We have rendered nugatory Nature's method of securing quality, and have thought out nothing adequate in its stead. In our duty and desire to help the unfortunate and afflicted, we are being tragically unkind to the next generation, which will carry the burden resulting from our neglect of biological law. These are matters which the medical profession should bring home to the nation.

And may I, in conclusion, address the freshmen? I like to think of you as my junior colleagues. You have chosen a very great profession. Its work is hard, its claims call for discipline and a readiness to spurn delight, but you are in the ranks of advancing knowledge, and you will live more fully, nor lapse into slumber, with the passing of the years. Along your road will be joy and sorrow, pathos and humour, nobility and frailty; all these will have your understanding and your helpfulness. To you will belong the larger vision, and with it an increasing love of your brother man. Be thinkers and doers; keep wide your interests, preserve your playtime, tread your path with confident and joyful step, and may God speed your great adventure!

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PROFESSOR T. B. JOHNSTON (*Dean*).—Mr. Treasurer, Ladies and Gentlemen,—In the course of the year many duties of a diverse kind fall to the Dean, most of them pleasant, and a few of them not so pleasant, either for me or for the person to be interviewed. But there is no task I undertake with greater pleasure than my present one, for I feel we are truly and deeply indebted to Lord Dawson for the honour which he has done us to-day in coming to present the prizes, and I wish to try to express to him, on your behalf as well as my own, with how much pleasure we have enjoyed, and how highly we have appreciated, the thoughtful

and thought-provoking address to which we have just listened with such interest and attention. If Lord Dawson were a lesser man one might have said that he takes an almost mischievous delight in touching on so many points in such a provocative manner, from the prolongation of useless and unhappy lives to the death-rate, physical education, physical recreation, and all those subjects which give us so much food for thought, and not only us but also a very much wider audience. What he said about the horizon for the doctor has a direct application to the medical school, for our horizon must be ever widening, and we must be prepared to undertake additional and heavy responsibilities to ensure that the horizon of the Guy's man is at least as wide as, if not wider than, that of his neighbour. And Lord Dawson may be interested in the fact that at the present time we are contemplating the erection of a great block of buildings in which there will be housed a large number of the family of pathologists who hitherto have had to live apart. And we propose to take advantage of that opportunity to enlarge the Anatomy and Physiology Departments, to enable them to expand and improve their teaching of human anatomy and physiology. The finances of the scheme are at present causing us some anxiety. It is not a laughing matter, gentlemen, as it will cost us something like £80,000. We can see our way to half that sum, but the other half is causing us difficulties. It is essential that it should go on, for the proper development of the School.

No man—except our Treasurer—has greater calls upon his time than Lord Dawson, and we are particularly grateful to him not only for giving up this afternoon to us, but also for the time and thought which he has so manifestly expended on the address to which we have listened, with, I hope, very much profit.

Lord Dawson has a well earned and well-founded repuation for great wisdom in counsel, and certainly no committee and no conference on medical matters is complete without him, and that is not surprising But what is surprising is that Lord Dawson always contrives to find time to get there. He may be occasionally, perhaps he is, a little late in arriving, and I understand he has been known to slip away before the end, but you may be sure that, in the interim, he has made important and valuable contributions to the discussion in hand. And when he speaks to us it behoves us to mark well his words and let them serve as a guide and an inspiration for the future, for it is written of such men as he, " He that knows and knows that he knows is wise, follow him."

Ladies and Gentlemen, I ask you to accord a particularly hearty vote of thanks to Lord Dawson for having come here to-day to present the prizes, and for having delivered the opening address.

The resolution was carried with cheers.

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VISCOUNT DAWSON (in reply).—I have kept you long enough already, but I cannot forbear briefly thanking you from my heart for having given me your attention so generously. There is no audience so good as that I have now in front of me. I have enjoyed audiences like this in hospital words for a long while, and I have set the example to you of being provocative and illustrating the fact that in clinical teaching the attitude of the critic should be, if there is a sore place, rub it, and if there is not one, make one. It is good for us to disclose weak points in armour when surrounded by critics, especially such generous critics as those here to-day. I wish you all good luck. You have a great vista opening up before you, and great discoveries are imminent which will make everything thrilling for you. They will make examinations harder, but the examiners will not know much about them. (Laughter and cheers.)

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Dr. ARTHUR F. HURST.—Lord Dawson has told us about early financial struggles. It is, I believe, no secret that Lord Nuffield is responsible for the fact that there is not a more empty treasury ; we have more than made up any loss by what he has done for the medical profession. All over the country there are orthopædic institutes which owe an enormous debt of gratitude to him for their present position. Here, at Guy's, we are lucky in having the finest paying wards in England —I believe in the world. (Cheers.) The Medical School is to be congratulated on the fact that Lord Nuffield has shown his interest in it by taking the chair this afternoon, and I wish to propose a vote of thanks to Lord Nuffield.

This was carried by a great burst of cheering.

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LORD NUFFIELD, in acknowledgment, said : Ladies and Gentlemen, I must thank you very much for your reception. I can only promise you that anything I can do in the future to help medicine and surgery will be my greatest delight. (Cheers.)

The Uses of Diathermy in Diseases of the Circulation

A Clinical Lecture delivered at Guy's Hospital by C. E. Iredell, Esq, M.D.

GENTLEMEN,—I have called this lecture "The Uses of Diathermy in Diseases of the Circulation," but I do not propose to deal with the well-recognised effects of diathermy in conditions for which it is commonly used, such as chilblains and Reynaud's disease, as you are no doubt familiar with them.

Intermittent claudication is a disease that is by no means uncommon, but the value of diathermy in dealing with it is less well known than is justified by results. It is associated with a diminution in the lumen of the arteries in the leg so that it is almost impossible to feel the pulse in the posterior tibial artery. A patient suffering from it will find that, after walking for some time, his leg gets heavy and he has to stop. After a short rest he is able to restart, but soon has to stop again. When the leg is examined it will usually be found that the foot, and especially the toes, are blue and cold, particularly in winter. If the limb is warmed by diathermy, one electrode being placed on the calf and the other on the sole of the foot, the ability to walk is increased, and, after a course varying in length of time to suit each individual case, the patient can walk further and with less discomfort to himself. As an example of this I may quote one patient who, after being treated, was able to run up a long flight of stairs without any trouble. One noticeable point about the treatment is that, after the first application, the patient frequently complains of cramp in the affected limb. This comes on a few hours after treatment is finished and may last for two or three hours. After the second treatment the cramp may reappear, but is far less severe, while, after the third application, it will probably not appear at all.

Intermittent claudication is not infrequently associated with high blood pressure, and, just as diathermy seems to have a beneficial effect in relieving the symptoms of this disease, so, if it is applied to the abdomen, it often relieves the symptoms of high blood pressure such as headache, shortness of breath, faintness and giddiness. The blood pressure itself may also be definitely diminished. A typical case is one about which I have just learned from a colleague of mine in which the blood pressure fell from 214/90 to 150/100 after treatment, and there is no doubt that diathermy is one of the most effective methods we have at our disposal for dealing with high blood pressure.

Some years ago I had occasion to write to a member of the staff of Guy's about a patient whose blood pressure was raised, and I told him that I was a good deal surprised to find that, by placing diathermy pads on the upper part of the chest, greater relief was obtained than when the pads were placed on the abdomen. One fact which must be remembered in dealing with high blood pressure is that, while diathermy is a most valuable ally in those whose health, apart from abnormal blood pressure, is good, it is of very little use when high blood pressure is only a sign of general deterioration of the body.

The uses of diathermy to which I have just referred are well recognised, and I will now mention some diseases in which it is valuable but in which its use is less well known. From time to time people are seen walking about, apparently in normal health, who complain of swelling of the abdomen. On examination it is found that they have some valvular lesion, and that the abdominal swelling is really due to ascites. If diathermy is given to the abdomen in these cases the fluid becomes absorbed after a few treatments, and there is an obvious improvement in their general condition. The use of diathermy in œdema of the legs in mitral disease is also of considerable value, but it does not appear to be as useful as it is in ascites.

As diathermy proved so helpful in relieving some of the symptoms of mitral disease, it seemed likely that interesting results might be obtained if the heart itself were treated. In the past this was by no means easy, because, with the ordinary diathermy machine, the pads had to be placed on the patient's skin and the difficulties, owing to the proximity of the ribs, were so great that, in actual practice, this form of treatment was very rarely used. Fortunately, in recent years a new type of apparatus has been introduced, to which the name of "short-wave diathermy machine" has been given. It is common knowledge that a diathermy machine is really a wireless sending apparatus, and, whereas the older type of machine gives off waves of about 300 to 400 metres in length, the new machine gives off waves of about 30 metres. Whether all that has been claimed for this new type can be substantiated is still a matter of controversy, but there is not doubt that by it a current can be passed through a patient without that patient having to remove his clothes and

without placing pads in direct contact with his skin. This is a very great advantage, and has made the application of diathermy to the heart a comparatively simple matter.

Everyone is familiar with the fact that in angina pectoris the pain frequently radiates from the left shoulder down the left arm and, in severe cases, the right arm may be affected as well. It is not, however, so generally recognised that people suffering from other forms of heart disease may have restricted movements of the shoulder joint where the pain is so acute that, in some cases, the arm can only be raised above the head with considerable difficulty. In the case of angina it is usually considered that this symptom is an intrinsic part of the heart trouble, and that therefore local treatment could hardly be expected to do any good. Nevertheless, local treatment in many cases does have a definite effect, and by placing the electrodes on the joint itself the pain in the arm and shoulder may be greatly relieved.

I have recently had an opportunity of treating several cases of heart trouble with short-wave diathermy, two of which can conveniently be described now while the remainder can be dealt with later on, though I ought to mention that all the cases had two factors in common :—

a. Short-wave diathermy was not given until digitalis and other drugs had failed to produce any definite signs of improvement.

b. All cases were in-patients of a hospital.

1. T. J. R. was admitted to hospital complaining of pain in the chest and arms of eight years' duration. During the last three years he had become definitely worse, and for the last nine months had been unable to walk 100 yards without bringing on the pain and the distress. A diagnosis of angina pectoris was made. Short-wave diathermy was given to the left shoulder in July, 1936. After a month the pain in the shoulder was much improved, and, although the pain in the wrist and elbow still persisted, he could move the limb much more freely. He also found that nitroglycerin was more efficacious than it was at the beginning of treatment, while the attacks of pain were less frequent and less disturbing.

2. E. F. H., aged 39, had had several attacks of violent pain in the præcordium and, on walking two or three hundred yards, got pain in the chest and left shoulder. It was found that he had dextrocardia, but, apart from this, nothing abnormal was found. A diagnosis of angina pectoris was made. He was given short-wave diathermy and, after fifteen treatments, was discharged from hospital and was able to walk normally.

The classical case of angina pectoris is characterised by two factors :—

1. Diseased arteries.

2. Attacks of pain due to spasm of these arteries.

I have already pointed out that in intermittent claudication there is disease in the arteries of the leg and that after diathermy treatment a spasmodic pain may appear in the leg which seems to be analogous to the cramp in the heart muscle in angina pectoris. It therefore appears to be a possibility that similar diathermy treatment of the heart in cases of angina may result in the production of an attack. Actually no such result occurred in the cases described above, but it is obvious that, in the presence of this possibility, the treatment should only be carried out if the patient is an inmate in a hospital where he can be carefully watched, so that amyl nitrite may be given at once if necessary.

I have seen two cases in which an ordinary diathermy machine was used and in which current was passed, not through the chest, but through the hands. In both these cases it seemed to me that the patients might be starting a heart attack, and the treatment was at once discontinued. It may be possible that the short-wave machine, quite apart from its convenience, is a safer instrument to use in these cases than the ordinary machine.

So far I have talked about circulation with reference only to the circulation of the blood. There is, however, another circulation which is often forgotten, but which, in some conditions, may be even more important. I refer to the lymphatic circulation.

The operation for carcinoma mammæ is frequently followed by swelling of the arm, and one of the most striking effects of diathermy is the relief it gives to the patient by reducing the swelling and in relieving the feeling of weight and discomfort in the arm. Neither massage nor radiant heat are as effective. In this particular operation the blood supply is hardly affected, but a large amount of lymphatic tissue is removed, with the result that the lymphatic circulation suffers accordingly and causes the swelling of the arm. A return to normal conditions shows that diathermy, in reducing the swelling, stimulates the lymphatic circulation. Another instance in which the same process occurs is in glaucoma, where the eye becomes hard owing to an increase in internal lymphatic pressure. Treatment by diathermy reduces the pressure, relieves the pain and aids the recovery of vision.

It is hardly possible to imagine that the lymphatic circulation is not concerned in the failure of the general circulation which accompanies heart disease, though we have at the present time no definite knowledge of the relation which one

circulation bears to the other, and a definite possibility exists that the lymphatic circulation plays a more important part than is usually supposed. It is conceivable that in the ascites and the œdema which are so commonly seen in mitral disease there is a failure in the lymphatic circulation no less than in the circulation of the blood. We know of no satisfactory reason why, when the circulation fails owing to mitral disease, œdema of the legs and acites are common, while, when there is failure of the heart muscle itself without valvular disease, œdema is frequently absent. Nor do we know why in mitral stenosis ascites is more common than in mitral regurgitation, where œdema of the legs is generally present.

The principle of gravity has a direct influence in the flow of fluids in the body. It is most commonly seen in the legs, where the upward flow of the blood in the veins bears a distinct relation to varicose veins and ulceration. Here the increased pressure is due to the action of gravity. Nevertheless cases occur in which, in spite of the action of gravity, the pressure may be raised by other factors and dilatation of other structures be produced. Instances of this are the ureters and pelvis of the kidney, which may become dilated by comparatively slight rise of pressure in the bladder.

If a relatively small rise in pressure will produce such marked effects when the structures concerned are thick and strong, it may be assumed that, when the vessels are such delicate structures as the lymphatics, a small rise in pressure would produce a far more definite result. It is well known in such diseases as chronic heart disease that a congested condition of the lungs occurs, the respiratory movements have less effect than normal, and the pressure within the chest wall is raised. This rise in pressure would tend to affect the lymphatic flow all over the body, but the dilatation of the important structures of the vascular system in the chest wall may also come into play and produce a disturbance of lymphatic flow in special parts of the body. For instance, pressure on one part might produce swelling in the legs and on another fluid in the pleuræ. Furthermore, myocardial degeneration may depend, in part at all events, on derangement of the lymphatic circulation through the heart muscle.

These considerations suggest the possibility that short-wave diathermy might be a valuable asset in the treatment of various types of heart disease. It certainly has proved of definite value where other methods have failed, and the three following cases, taken from a series, illustrate the truth of this.

1. C. S. R., aged 44, complained of loss of energy and shortness of breath of a year's duration. A diagnosis of circulatory debility and atonic myocardium was made. He was given short-wave diathermy and, after nine treatments, his symptoms cleared up and he was discharged from hospital feeling perfectly well.

2. F. C. N., aged 52, had stabbing pains in the left side of the chest for three years. He was worse when stooping or bending or breathing deeply or coughing. X-rays showed that there was cardiac enlargement in all areas. No valvular lesion was present. The patient was given short-wave diathermy and after seven treatments said he was feeling much better. After a further 18 treatments he left the hospital feeling quite well.

3. A. D. H., aged 67, suffered from shortness of breath for nine months. Swelling of feet and dyspnœa were marked while he was sitting in bed. Fourteen treatments of short-wave diathermy were given, after which the patient was discharged from hospital feeling well.

In this connection there is another condition which is not infrequently seen in the upper part of the chest, which becomes definitely enlarged. It is often part of what is called an "elderly spread." If the chest is massaged firmly downwards it is often possible to reduce this condition, and the patient feels freer and accordingly better. A possible explanation along the lines I have just suggested may be that a partial obstruction of the lymphatic duct leads to dissemination of toxins in the lymph being forced from it into the upper part of the chest cavity. This would account for the fact, to which I have already referred, that diathermy given to the upper part of the chest may be more effective in reducing raised blood pressure than when it is given through the abdomen.

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The Teaching in the Administration of Anæsthetics

By Eric A. Scott, Esq.

IN a hospital with a large Medical School as part of its being, the administration of anæsthetics necessary for the performance of the surgery, differs to a certain extent from that of an institution where there are no students whose curriculum demands instruction in the administration of anæsthesia. For this reason a staff anæsthetist's life, always one of divided loyalties, has, in a teaching hospital, a further responsibility added in the student acting as the anæsthetist's clerk. The anæsthetist, therefore, is in a position where he has to consider four factors, all of which demand his attention and loyalty. They are :—

1. The patient.
2. The surgeon.
3. His clerk.
4. Himself.

With a little thought it will be seen in what an invidious position the anæsthetist sometimes finds himself. The patient is in his hands for a period which, if short, is none the less critical. The surgeon must be put in such a position that he can perform, without unnecessary difficulty, any operation that may be the indication of the moment. The anæsthetic clerk must be taught to administer the anæsthetic himself, or the time will come when the supply of competent anæsthetists falls dangerously low. And, finally, the anæsthetist must consider himself, and it is easy to see that his job is never an easy one. For, accepting the statement that the patient and the surgeon must be considered first, the anæsthetist is put in the position of trying to be simple enough in his methods to teach the beginner, and yet advanced enough to cope with the demands of the operation in question.

It is this situation which arises so frequently that has prompted me to try and make it clear to the students why it is that not all anæsthetics can be given by them. For, though it may seem that possibly they have not had a sufficient number of actual administrations during their period of clerkship, they will, I am sure, realise that times have changed very greatly in the last five years or so, and whereas then it was possible for them actually to administer perhaps 90 per cent. of the anæsthetics, this is not now the case.

The multiplication both of methods and of drugs used has been so great recently that the anæsthetist, inevitably, has to do more demonstrational teaching than heretofore. The methods have been complicated by :—

1. The large number of machines of widely differing design now available on the market.
2. The increase in the number of available drugs, and the varying methods of administering them.
3. The recrudescence of established methods, such as spinal anæsthesia, with recent modifications and greater scope.

Now, inevitably, this has made it almost impossible for the anæsthetist to teach every student to perform these manœuvres for himself, and the student must realise that a very considerable amount can be learned by watching carefully the technique of the anæsthetist under whom he is working.

In the olden days a routine open-ether anæsthesia could be relied on, in some way or other, to produce an operable condition for the surgeon ; and, even if not particularly elegantly done, the result could be obtained.

Unfortunately, this does not apply under present day conditions. A spinal anæsthetic is either perfect or the complete reverse, and there is no intermediate state. The same remarks apply to intravenous anæsthetics ; they either work perfectly or not at all. The surgeon may demand for a particular case a special form of anæsthesia, and upon the success or failure of this may depend the result of the whole operation. Obviously, in such circumstances the anæsthetist must often perform the actual administration himself, more particularly in the case of spinal anæsthesia.

The technique of intravenous administration is not so difficult, as practice is often to be obtained in other parts of the hospital, and even the passage of an intratracheal catheter can be practised to a certain degree by taking opportunities, where they arise, of viewing the larynx at the conclusion of operations where deep anæsthesia has been maintained for a considerable time.

However, I wish to impress upon the student that, if he applies his attention closely, he can still learn much without being the actual performer. After all, in surgery he is expected to do this, and it is almost entirely by watching and listening that he learns his surgery, and it is only in the teaching of anæsthetics that personal practice is expected from the earliest stage in his period of instruction.

There are also other activities with which he can busy himself, for in a hospital a great many patients receiving Avertin have their Avertin

solution made up in the Dispensary, and I advise the student to go there some time when the dispenser can spare the time and see it actually made up, for it is rarely that the time arises when we make it up ourselves, save in private practice. Again, when it has been made up, he might with profit arrange to see it administered in the ward. These are all parts of the teaching of anæsthetics that it is well-nigh impossible for the anæsthetist to demonstrate himself, owing to the many calls on his time, as well as the distance of the wards from the theatres.

When I look back a few years it certainly strikes me most forcibly how tremendously the problem of teaching has changed, and I have felt sometimes that an industrious clerk may have thought that he was not getting enough practical experience, and it was this feeling that has moved me to try and explain the manifold difficulties from the anæsthetist's point of view. Amongst those difficulties is the demonstration of the recovery of the patient from the anæsthetic, for it must be remembered that an anæsthetic is only a means to an end, and, being so, should not be more productive of preliminary dread and subsequent discomfort than the operation itself. It is, I am afraid, rarely that the anæsthetist's clerk sees for himself the result of his activities, and I would suggest that he might sometimes be distressed if he did, but, whatever the result, I would urge anyone who has given an anæsthetic to go and see the patient afterwards and judge for himself the probable standards of his endeavours. In this way much may be learnt that will add greatly to his knowledge and to the comfort of his future patients.

Finally, there is one more point on which I want to say a word. It may be that a student will, at some time during the course, find himself attached to a different anæsthetist to the one with whom he started, and may be surprised at what seem to be immense differences in technique. But I would urge him to try to remember that these are differences only of detail and not of fundamentals, and to try and keep a sense of balance when considering this matter, for because two anæsthetists differ in method, it does not follow that either is wrong, and, in any case, much more can be learnt from criticising and comparing two separate methods than from the study of one man's practice. Also do not let your interest and enthusiasm in trying out new methods and new drugs blind you to the first and foremost of your loyalties—the patient's safety. That is paramount and is your first duty.

Correspondence

Guy's Hospital Appeal Fund

To the Editor of the GAZETTE

SIR,—You were kind enough on the occasion of the launching of Guy's Hospital Appeal to bring to the notice of the public, through your columns, the needs of this great Hospital.

I should be sincerely grateful if I might again ask for your assistance in making known a most generous offer of £80,000, which has been made to Guy's by our Treasurer, Lord Nuffield.

Lord Nuffield has given a promise to make himself responsible for the £80,000 mentioned in the Guy's Hospital Appeal for necessary extensions to the Nurses' Home. The gift is to be a conditional one, as the promise is made on the understanding that it will become redeemable only when the total balance of the Appeal for £500,000, viz., £420,000, has been subscribed from other sources.

Might I express the hope that this magnificent promise from Lord Nuffield may lead others to follow his example, and enable us to collect the balance of the sum which Guy's Hospital so urgently needs, and so put us in the position to ask Lord Nuffield to redeem his promise.

I might say that every donation, whether large or small, will be most gratefully acknowledged.

Yours, etc.,

ALFRED BEIT
Chairman,
Guy's Hospital Appeal Fund.

Guy's Hospital, S.E.1.

Stammering

To the Editor of the GAZETTE

SIR,—I have read with much interest the report of Mr. St. John Rumsey's lecture on "Stammering and Its Correction; A Comparison of Methods." If I may beg the courtesy of space in your *Gazette* I should like to discuss certain points in this lecture.

Mr. St. John Rumsey mentions four methods of correction: "First, speech-training; secondly, training in deep breathing and general relaxation, the method used in the L.C.C. clinics; thirdly, psycho-therapy; and lastly, elocution." One of these methods is his own; two he discusses in general terms, but the fourth (or second, as he places it) he mentions by name, and it is upon

his misconception of this method that I should like to comment.

I have had the honour to be one of the L.C.C. speech therapists for nearly ten years, and during that time certain changes have taken place in our methods, as must happen in everything that lives and grows. In the early years we practised a certain amount of voice-production through intercostal breathing, but for many years we have realised that the faulty breathing of the stammerer is due to the stammer and not the stammer due to the breathing; the faults of breathing and other mannerisms mentioned in the lecture can be and are corrected by relaxation.

The stammerer lives in a state of physical and mental tension which causes him to doubt both himself and other people; this lack of self-confidence can take many forms varying from diffidence to bravado, but it is present in every stammerer, however well he may hide it. The stammer is a symptom of this lack of confidence, and it is possible to cure the actual stammer without curing the stammerer; everyone has met the person who says that they used to stammer—the actual stammer may have gone, but the neurotic state remains, and shows itself in countless ways.

The curative relaxation taught in the L.C.C. centres enables the stammerer to gain a knowledge of himself physically and mentally; he learns to concentrate first on physical relaxation and discovers the mental ease obtained; he acquires the habit of ease; he releases the energy wasted in strain and allows it to flow into useful activities; his health and mental powers improve rapidly.

Mr. St. John Rumsey says: "I cannot see a useful connection between relaxation of the arms and the production of open tone." Is it possible that he makes this statement seriously? How is it possible to have tension in the arms without affecting the shoulder, throat and even chest muscles? Teachers of voice production of every school demand relaxation of these muscles for good open tone.

To the best of my knowledge Mr. St. John Rumsey has not visited our centres for many years. He says, "the weakest point in the L.C.C. method is that the patients are made to read together. All stammerers are in any case fluent when speaking or reading in chorus." Does he really think that we have not always been aware of that fact? This exercise, which has not been used for a long time, was only practised to give the children a feeling of rhythm and confidence; each child read alone and the others acted as a chorus.

I am not criticising Mr. St. John Rumsey's own methods, which I have not seen and, therefore, feel unqualified to do. I am merely asking that our work should not be misrepresented in a famous hospital.

May I end this letter by quoting from "Speech in Childhood," by Seth and Guthrie, those eminent Edinburgh specialists?—

"The general principles of the treatment which we have employed follow closely the methods elaborated by Boome and Richardson in the London County Council Centres for Stammering Children, and described in detail in their book 'The Nature and Treatment of Stammering.' It is impossible to over-estimate the value of their contribution to our therapeutic practice in dealing with the baffling disorder with which we are here concerned. They have laid down three guiding principles which should inspire and regulate any attempt at remedial treatment of the stuttering itself, namely, relaxation, suggestion and rhythmical co-ordination. The most important of these is relaxation."

Yours, etc.,

HONOR M. S. BAINES,
Hon. Speech Therapist,
Belgrave Children's Hospital.
29, Welbeck Street, W.1.

Reviews

Laughing Gas. By P. G. WODEHOUSE. Published by Messrs. Herbert Jenkins, Ltd., York Street, London, S.W.1. Pp. 311. *Price 7s. 6d.*

WE have not previously felt it incumbent upon us to review the works of Mr. P. G. Wodehouse. True there have been occasions on which he has with a few deft words sketched to the life certain members of the medical profession. Witness, for instance, his description of the mental specialist, one that we would not dare to repeat. It may be perfectly all right for Mr. Wodehouse to pen such a thing, but for us to quote it would put us in danger from an eminent lecturer on psychology of an action for libel or slander, or whatever social crime it is that can be laid at the door of editors and their reviewers. As the literary organ of the greatest dental school in the country—and therefore of the world—we find ourselves bound, however, to consider Mr. Wodehouse's latest work, entitled "Laughing Gas." No dental surgeon is the hero, but rather the *Deux ex machina.* Actually

there are two gods with two gas machines, and they perform their rôles badly by getting the characters into a tangle instead of out of one.

The metaphysical hypothesis upon which the book is built may be enunciated thus : " Let two human beings at the same moment and in neighbouring rooms be given gas for the extraction of corresponding teeth. Some part of each will, for the same period of time, be ' sauntering about in the fourth dimension, or whatever they call it ' and, returning at the same moment, one ' impetuous young cuckoo ' may barge into the body of the other and that other, having nowhere else to go, will toddle off and get into his." As we have never been able to understand what metaphysics is—or are, as the case may be—we are unable to say whether there is any evidence in favour of such an hypothesis. What we can say is that it makes an excellent *vice versa* foundation upon which Mr. Wodehouse has, with his usual skill, spun a network of adventures entanglements and misunderstandings all of which are finally as skilfully unwoven until the protagonists of the tale are at the stage where we are entitled to assume that they will live happily ever after.

What all these were we have no intention of telling our readers ; it is their business to find them for themselves. It is our business merely to outline the dental aspects of the tale, leaving others to dilate upon the problems arising therefrom. Messrs. I. J. Zizzbaum and B. K. Burwash were " fang-wrenchers of high repute," practising in the same house and on the same floor. Their rooms adjoined one another and " possibly because they were old dental college chums, or possibly from motives of economy," they " shared a common waiting-room." That they were not partners is shown by the jealousy which Mr. I. J. Zizzbaum evinced when his patient, whose " modest fee " was all that he could expect from the afternoon's work, mentioned the patient in the other room who was of so great importance that " old Pop Burwash was going to get his name on the front page of all the public news-sheets and become more or less the World's Sweetheart." In the dentist's waiting-room the two patients had met ; the left cheek of each was bulging, and each was turning over the pages of the *National Geographic Magazine*, " and presently a white-robed attendant appeared and announced that B. K. Burwash was straining at the forceps," . . . " and not long after another white-robed attendant came and said that I. J. Zizzbaum would be glad if " his patient would look in. The whole scene sounds like Portland Place. It is not ; it is Hollywood.

" I. J. Zizzbaum proved to be rather a gloomy cove," and the reactions of the patient to such a dentist are skilfully portrayed. He was at his chattiest, and the sadder and more silent the dentist became the more he talked. He tried the weather, his position in the chair, memories of his old school, and the patient that had just gone in next door. Finally he ended up with " recent discoveries in the Congo Basin " that he had " on the authority of the *National Geographic Magazine*." The conversation of a dental surgeon must always be a matter of nice decision. The present reviewer remembers how about the time of the second Home Rule Bill his mother, a good old Tory, nearly decided to leave a Radical dentist who had looked after the roots of her teeth with great skill for many years because just as he had got her mouth wide open with a dental prop and the large piece of gutta percha, that was the last thing in technique in those days, he would insist on entering into politics and discussing whether Mr. Gladstone would be able to get the Bill through the House of Commons. We suggest as an essay for one of the prizes in the Dental School next year a discussion on the relative advantages of being the " strong, silent dentist," or of adopting the " fatherly manner." We wish we had Mr. Wodehouse's description of the reaction of the patient to the latter.

His skill in putting his minor characters in the right place is exemplified in this book. When speaking of the anæsthetist he says that the dental surgeon " motioned to his A.D.C. to cluster round with his gas-bag." Mr. Wodehouse's power to give a descriptive name to a person or an institution is well known. Dr. Blacker and the whole Board of Control may try to alter the name " Asylum " into " Mental Hospital." They were just too late. Mr. Wodehouse had already changed it to a " luny bin." Whether the term " molar-mangler" will also enter into common parlance for a dentist we do not know. As an inventor of new words, however, we do not remember him previously to have shone. In this book, however, he has done so. " A sussurration of blighters, some male, some female," is used to describe the sudden irruption into a room of a number of persons all talking at once. For the benefit of the uninitiated it is necessary to say that in the mouth of a Wodehousian hero there is nothing derogatory in the word " blighter." It is merely synonymous for a " person." " Sussurration," however, we hope will remain in the language. It seems to be just as good as *hallucination*, *incantatory*, *antediluvian*, and other efforts of our old friend Sir Thomas Browne.

We advise every Guy's dental student to study

this book. As a matter of fact, we would also advise every medical student and nurse to do the same. We would much sooner they left it lying about the Out-Patient Department than a book on midwifery or a dictionary of nursing.

T. B. L.

Essentials of Modern Medical Treatment. By VINCENT NORMAN, M.D., M.R.C.P., F.R.C.S. (Edin.), D.P.H. Hutchison's Scientific Publications. Pp. 192. *Price* 10*s.* 6*d.*

IT has been said recently that 90 per cent. of present-day medical teaching is directed towards making a diagnosis, and only the remaining 10 per cent. towards the all-important question of treatment. This criticism was made by an osteopath, and of course there are many obvious retorts about putting carts before horses and making the vertebral column a sort of universal scapegoat of disease, but, even so, we have often felt that a little more emphasis might be laid on the problem of treatment, which, after all, is what is required of us, especially in those trivial, yet none the less distressing, complaints that are the daily burden of the general practitioner. For the most part these are much too insignificant to be shown to the consultant, and are therefore apt to be left out of the textbooks of general medicine, a fact which adds interest to books by general practitioners, and it is always in the hopes of learning something of value in the way of practical therapeutics that we read them.

However, in Dr. Vincent Norman's attempt to outline the essentials of treatment we must confess that we were sadly disappointed. There is no doubt that there is a very definite need for a work of this kind, but to be of any real value it must fulfil several rather exacting criteria, in that it must be very carefully arranged so as to provide easy reference; it cannot hope in its limited space to provide a complete index of treatment, and should therefore attempt to sift out what is wholly irrelevant; and finally, it must consist of something more than a sort of scrap-book made by piecing together the fragments on treatment from a general textbook.

As to how far Dr. Vincent Norman has fulfilled these conditions opinions may differ, but we found the general arrangement of the subject matter exceedingly difficult to follow in places, and were at times bewildered by the various headings and subdivisions. These may seem trivial objections, but there are more serious errors; histidine, now almost universally condemned, receives favourable comment in the remarks on duodenal ulcer, achlorhydria is dismissed in a few lines, and neither gonorrhœa nor arsenical poisoning is dealt with at all, to mention a few of many notable omissions; and even typhoid, a disease embodying every principle of medical treatment, and one in which the author, living in Bournemouth, must have had ample food for thought, is but sketchily described, and little or nothing is added to the treatment in the general textbooks.

In all, we feel that neither the general practitioner nor the senior student, for whom this book is intended, will find much to benefit them, and we would describe it as a rather dull stopgap between a textbook and an index.

British Masters of Medicine. Edited by Sir D'ARCY POWER. Published by the *Medical Press and Circular.* Pp. 242, plates 32. *Price* 7*s.* 6*d.*

"READ no history, nothing but biography, for that is life without theory," wrote Lord Beaconsfield. For those who do, and those who do not agree, *British Masters of Medicine* has much to recommend it.

This collection of twenty-four biographies of the men who have brought medical science from the darkness of four centuries ago to its present degree of knowledge and skill is, inevitably, a history of the progress of the science itself throughout that period. The historical data are so interwoven in the life-stories of the men who made it that the book is primarily biographical, and will interest the lay as well as the medical reader.

In many instances the articles are too short, for of such characters one would know more. If in a few cases the telling borders on the sentimental, hero-worship has been wasted on many less worthy of it.

M. J. F.

Notice

We have to inform our readers that, owing to an error, the Dental Manufacturing Company's old address was published in "The Dental Curriculum" article in our last issue. Will intending purchasers please note that their address is: Brock House, Great Portland Street, London, W.1.

The University of London (Senior Division) Officers' Training Corps

By Captain H. H. Kenshole, R.A.M.C., T.A.

THIS body consists of some 1,000 members drawn from the various Colleges and Schools of the University, and is divided into Infantry, Artillery and Sound Ranging, Engineer, Army Service Corps and Medical Units, and we at Guy's provide one company of the last-named.

In the above facts lies dormant a rather remarkable truth, namely, that the O.T.C. is almost the only organisation which brings together in any large numbers the members of all the hospitals and constituent colleges of the University. It is true that there are certain United Hospital Clubs, but the O.T.C. alone is the link which finds the students of all institutions, and by which many lasting friendships are born and flourish.

Only those who are of British nationality and of pure European descent are eligible for membership, and enrolment involves two years' service with the Corps, and here it should be emphasised that service is totally different from that in School (Junior Division) O.T.C.'s, an idea hard to eradicate from the minds of many men when they first come up to the University, but time and again one hears remarks from those who have joined that had they known before how different it was from the Junior O.T.C. they would have joined much earlier.

Considering our Unit, for naturally it is of most interest to Guy's men, the work is almost entirely technical in nature, and designed to train members to be able to act as Medical Officers in the Services, whether by choice or by necessity. It consists of lectures on such subjects as Protective Measures against Chemical Warfare, so much in the public conscience at the present time, Recent Advances in Water Purification, the Medical Services in India, the Colonies, and in the Navy and Air Force.

Practical field training consists of the siting and establishment of Aid Posts and Dressing Stations, with the aid of equipment which is similar to that actually available to mobile medical units on active service, and it would be an education to many to know how completely equipped a dressing station may be for the care of sick and wounded, yet so mobile that it can be dismantled, transported and completely re-established miles away in a matter of a very few hours.

Most of this training is done at annual camp at such places as Folkestone, Eastbourne, Sandown (I.O.W.) and Swanage, held always during the last two complete weeks of July, and attendance at which for ten days at least is essential.

Apart from this most important of our activities, lectures attended in mufti are held every Thursday in term time in the Medical School building at 5 p.m., and there is a Whitsun week-end camp, voluntary for members of the Medical Unit, at our own private Standing Camp at Princes Risborough, Bucks.

Most years, too, the O.T.C. is called upon to provide Guards of Honour for members of Royalty when visiting hospitals, colleges, etc., and we were honoured by being present at the Jubilee Procession, and later at our late Sovereign's funeral. We hope and expect to be on duty at the Coronation of the King, by whom in the past, as Prince of Wales, several Guards of Honour formed by the Medical Unit have been inspected.

The Chancellor of the University, the Earl of Athlone, is our Honorary Colonel, and we are grateful to him for the great and helpful interest he takes in the Corps, visiting us at most annual camps and, when circumstances permit, staying for a day or so.

From time to time people who label themselves Pacifists try to obstruct the activities of the O.T.C. Pacificism is a difficult term to define, but in the writer's opinion those who adopt this attitude are taking a superficial view only, and deeper thought would in all probability reveal the truth of the undoubted fact that the Corps is a pacific organisation.

The Regular Army of this country to-day is merely a policing force for the protection of the Empire, and those who live in it, and in this connection it should be remembered that our membership of the League of Nations makes us responsible for the keeping of such forces as are requisite for the maintenance of international peace. The most ardent Pacifist cannot say that the size of our Regular Forces to-day is likely to cause war, yet must admit that to be almost entirely defenceless is likely to lead to attack by stronger foes, as has been proved in history upon many occasions. Therefore he who so wisely desires peace should advocate the provision of a Regular Army of reasonable size with an efficient, numerically-strong Territorial Army and Officers' Training Corps, as an indication that, if we are attacked,

we are ready and prepared to take up arms to defend our shores and people.

Looked at from a purely economic view the present arrangement in this country is far preferable to that in most countries where two years' service with the armed forces is compulsory for all, with the result that such period is completely wasted as far as the student or newly qualified professional person is concerned.

At all events the Corps contains to-day many officers who fought in the last war, and all are agreed that they hope there will never be another.

Camp next year is likely to be at Swanage, and those who wish to become officer cadets of the Medical Unit are asked to enrol as soon as possible, for recruiting stopped in February this year as our numbers were up to establishment (400), which could not further be increased. Guy's has always taken a prominent part, and although we have this year parted with the Cup awarded for Efficiency, the company still consists of men keen and interested to learn and to take their full share, and we shall welcome as many new recruits as are prepared to join us under similar conditions. Further particulars can be obtained from Mr. Whitteridge in the Light Department, Mr. Mayer in the Anatomy and Physiology Departments, and Mr. Kenshole in the Dental Department on Monday and Thursday afternoons. Application forms for enrolment and further information are always available at the lectures held in Classroom I of the Medical School on Thursdays at 5 p.m.

Sport

Rugby

Guy's v. United Services (Portsmouth)

AT Honor Oak Park on Saturday, October 3rd, the Services decisively defeated the Hospital by 2 placed goals, a penalty goal and 4 tries (25 points) to nil.

Guy's made several changes in the side which was so heavily beaten at Coventry, but the from commencement the Services were full of dash and would never allow the Hospital to settle down.

The visitors fielded a very strong team, which included Lt. Unwin and Lt. Elliot, the English Internationals, and Surg.-Lieut. Heberlein, who hooked for the Hospital two or three seasons ago.

We were particularly pleased to see Surg.-Commander L. B. Osborne, an old Guy's man, who captained the Navy in 1927-28, and who has just been appointed the sole selector for the Navy.

The weather was perfect and conditions ideal when Guy's started the game with the advantage of the sun behind their backs, but within three minutes the Services had crossed the line. Their forwards dribbled the ball to the Hospital's 25 and, following some loose play, Nott picked up on the right, cut past Stewart, and flung out a long pass to Ford on the left, who, finding himself unmarked, had no difficulty in scoring.

Offside against Stanyon-Jaques enabled the Services to score another three points when Linton kicked a splendid penalty goal from near the touch-line.

Guy's retaliated, but were quickly driven back by Stevens, and then Dick started a good three-quarter movement which ended disastrously, as Stewart was a trifle slow in taking his pass and Nott intercepted, raced through the whole defence, and scored a fine try behind the posts, which was not converted.

For a few moments the Hospital saw more of the ball, but their combination was very poor and little headway was made. However, two penalties against the Services in quick succession nearly led to a score, but on each occasion Wright's kick at goal fell short.

The Services took up the attack again and forced a scrum on the Hospital line, and the ball was sent to Elliot, who forced his way through a very small gap to score a try, which Linton converted.

Near the interval another snappy movement ended in Ford racing over behind the posts, but Linton missed an easy kick at goal.

In spite of the fact that they were seventeen points behind, Guy's started the second half in great style, and had hard luck in not scoring on two or three occasions.

Time after time attacks were launched, but bad finishing and over-anxiety proved their undoing. Having warded off these onslaughts, the Services started another movement, which was completed by Elliot, who scored a spectacular try behind the posts.

Although Guy's were getting the advantage in most of the set scrums, the ball came out very slowly, and with Dick closely marked the halves failed to find the connecting link, and, as a result, many good openings were simply thrown away.

After Dick had tried a drop at goal, the Services touched down and from the kick-off Unwin made a magnificent run and looked a certain scorer, but Sharp crashed him into touch near the corner.

With the Services relaxing their efforts, Guy's carried out several passing movements, but they

were met with some fine tackling and little progress was made.

To complete their discomfiture Nott intercepted a pass to the wing and broke through on his own to score the final try, which Elliot converted.

Team.—E. C. Sharp; C. G. Wright, J van A. Steytler, I McD. Stewart, J. P. Crawford; R. C. S. Dick, K. A. Stanyon-Jaques; H. H. Crabb, E. S. Nicholson, P. H. Crampton, P. Ellis, J. R. D. Williams, P. Fletcher, C. S. Darke, R. O. Yerbury.

Guy's v. Devonport Services

FOR the first time for several seasons, Guy's received Devonport Services as their visitors on Saturday, October 10th, and after a strenuous but evenly contested match the result was a draw, the Hospital scoring a placed goal and 2 penalty goals (11 points) to a placed goal and 2 tries (11 points).

After their recent displays the result will please many Guy's supporters, but there is still room for a lot of improvement if the Hospital are to maintain their prestige in first-class Rugby. With the introduction of M. R. Kark and I. G. Robin in the pack the Hospital forwards more than held their own against what is probably one of the heaviest packs in the country. Furthermore they not only secured their fair share of the ball in the line-out, but followed up with that dash and speed for which the Hospital was famous a few years ago. But for the coolness of Knapman at full-back, the Services would have had a harassing time, but one must not forget that, although they were led by that old warrior and International Marine Webb, they missed the services of their captain, N. L. Evans, who was nursing an injured ankle.

Guy's kicked off and, playing with plenty of confidence, soon had the Services defending their 25. Knapman relieved the situation with a glorious kick to touch, but, following a huge kick by Steytler, Wright followed up and forced a scrum on the Services' line. Guy's tried their utmost to find an opening, but the Services' tackling was sure, and eventually Lt. Bayliffe sent the Hospital back to their own half as the result of a fine kick which found touch beyond midfield.

The Devonport forwards stormed the Hospital line and, following some severe scrummaging, the ball was whipped out to Purvis, who ran in for an unconverted try.

This success inspired the visitors, who from the kick-off went all out to add to their score. Webb picked up after some loose play in midfield, passed to Casement, but Bayliffe just failed to gather a high pass when he had a clear run in.

The Services still pegged away, but Halamandres relieved and eventually Dick cut through the centre, passed to Wright, who went all out for the line, but unfortunately the latter was brought down just as he was rounding the full-back.

Guy's were now playing strongly and kept the Services in their 25, following judicious kicking by Dick and Halamandres.

When favourably placed, Guy's were awarded a penalty for obstruction, but Kark missed a good opportunity to draw level. Robin, who had been conspicuous throughout, started a glorious passing movement; the ball travelled very quickly via Crabb, Nicholson, Dick to Stewart, but the latter sent out a pass which was too high for Crawford to gather when the latter had an open line before him.

Just when it appeared that the Services would retain their lead at the interval, Stanyon-Jaques started a movement which was brilliantly carried on by Stewart; although hemmed in from all sides, the latter managed to throw out a long pass to Dick, who quickly transferred to Wright. Seizing his opportunity, Wright cut inside, side-stepped Knapman, and crossed behind the posts for Kark to add the goal points.

This success aroused the enthusiasm of the Hospital supporters, but immediately after the interval the Services attacked strongly and, profiting by mistakes in the defence, added eight points within five minutes of the restart. First of all Marsh and Bayliffe took the ball down the right, passed inside to the forwards, who were all up, and Payne crossed easily.

A minute later Hurden showed up the weakness in the centre when he cut through from the right and sailed in behind the posts for Knapman to convert.

This was a most depressing setback, and all against the run of play. However, after the Services had missed a penalty for feet up, Guy's counter-attacked and Wright made good headway on the wing before punting ahead, but the ball bounced luckily for Knapman and he had no difficulty in clearing.

The Hospital stuck to their task and, after Crawford had intercepted a dangerous movement, Dick and Wright combined beautifully, until the latter was collared a few yards from the line.

Good work by Crabb and Kark kept the Services in their 25, and a fine effort by Stewart should have been rewarded, but Steytler knocked on at the critical moment.

Offside against the Services gave Kark another opportunity, and this time he kicked a great goal from thirty yards out. Another excellent effort between Stanyon-Jaques, Stewart and Crawford was checked near the goal line, and then the Services were penalised again for not playing the ball, and Kark levelled the scores with another good kick.

The Services made their final effort to snatch the lead, but Guy's held out and, in the closing stages, the Hospital were definitely on top. Only a magnificent tackle by Bayliffe prevented Wright from scoring, and then Stanyon-Jaques was grassed after he had made a long run to the Services' 25.

Team.—C. Halamandres; C. G. Wright, J. van A. Steytler, I. McD. Stewart, J. P. Crawford; R. C. S. Dick (Capt.), K. A. Stanyon-Jaques; M. R. Kark, E. S. Nicholson, H. H. Crabb, J. D. Williams, I. G. Robin, C. S. Darke, R. O. Yerbury, P. Fletcher.

Fencing

The Fencing Club still requires new members. Anyone interested in fencing should come to the Pavy Gymnasium on Wednesdays or Thursdays between 4.30 and 6 p.m., bringing with him a pair of white flannel trousers and canvas shoes.

Hospital Information, etc.

Pass List

SOCIETY OF APOTHECARIES OF LONDON.

PRE-MEDICAL AND PRIMARY EXAMINATIONS.

October, 1936.

Materia Medica and Pharmacy.

W. A. Groom — G. E. King-Turner

Anatomy.

A. Backman — J. A. Sutton

Physiology.

A. Backman — M. J. R. Franks
E. A. Spouse — J. A. Sutton

UNIVERSITY OF LONDON.

SECOND EXAMINATION IN DENTAL SURGERY (B.D.S.).

July, 1936.

PART I—(A).

General Anatomy and Physiology.

W. G. Cross — K. B. Lole
D. P. Finnegan — N. M. Midgley
J. G. Hancock — R. C. D. Morrell
W. J. Head — K. R. Titford
W. E. Jackson

PART I—(B).

Prosthetic Dentistry, including Metallurgy.

J. C. Coe — D. G. Sharp
D. M. Cushing

PART II.

Special Anatomy and Special Physiology.

P. A. Chandler — D. G. Sharp
R. L. Kenyon

THIRD EXAMINATION IN DENTAL SURGERY.

*E. H. Cooper.

* Distinguished in Surgery and Pharmacology.

UNIVERSITY OF CAMBRIDGE.

Michaelmas Term, 1936.

QUALIFYING EXAMINATION.

M.B., B.Ch.

Anatomy.

B. M. Heap — G. P. A. Sechiari

October, 1936.

Physiology.

B. M. Heap.

FIRST EXAMINATION.

PART II.

Physics.

C. N. Macintosh — J. S. Pegum

PART IV.

Organic Chemistry.

R. Talfourd-Jones.

Papers by Guy's Men

W. E. Tanner. Excision of a large duodenal diverticulum in the head of the pancreas. *Lancet*, 1936, ii, 853.

R. G. Heegaard Warner. National Health Insurance in Gt. Britain and the British Dental Association's Capitation Scheme. *Brit. Dent. Jour.*, 1936, lxi, 461.

J. A. Ryle. Anorexia nervosa. *Lancet*, 1936, ii, 893.

A. Simpson-Smith. Traumatic rupture of the urethra: Eight personal cases, with a review of 381 recorded ruptures. *Brit. Jour. Surg.*, 1936, xxiv, 309.

Changes of Address

J. J. Conybeare, 16, Wimpole Street, W.1. *Welbeck* 6860. Residence unchanged.

Alan R. Gillies, L.D.S. (Eng.), 24, Alvanley Gardens, Finchley Road, Hampstead, N.W.6. *Hampstead* 2449.

Surg.-Lt. C. V. Harries, R.N., Oakdene, Keswick Avenue, Cardiff. Also H.M.S. *Sussex*, c/o G.P.O., London.

Appointment

Richard W. Waldie, appointed Honorary Dental Surgeon to Stockton and Thornaby Hospital.

Birth

CAMBROOK.—On October 2nd, 1936, at 20, Devonshire Place, London, W.1, to Joan, wife of J. Draper Cambrook, M.R.C.S., L.R.C.P., L.D.S.—a daughter.

Death

ROBERTS.—On 17th October, 1936, Richard Roberts, L.D.S., R.C.S. (Eng.), of Cherry Tree, Waldron, Sussex, formerly of Kendal, Pembroke Road, Sevenoaks. Aged 56.

EDS. {M.A.P. A.G.W.H.

GUY'S HOSPITAL GAZETTE

A Journal of Medicine, Surgery, Dentistry and Hospital News.

PUBLISHED FORTNIGHTLY.

Volume L — *7th November* 1936 — *Number* 1260

PASSIM

THE Appeal collection, like some old gentleman going up the stairs, has, after a brief rest, gathered its strength and started to climb again. Apart from Lord Nuffield's conditional gift of £80,000, the sum reached is now a little more than fifty-five thousand pounds. Lord Wakefield has most generously given £2,000, Messrs. Morgan & Greenfield £1,000, Messrs. Watney, Combe, Reid (whom God preserve !) £1,000, and Lord Bearsted £1,000.

The sum collected through the energy of helpers and the kindness of the Chrysler Car Company at the recent exhibitions of hell-driving at Wembley was £717 5*s.* 9*d.* The largest sum on any one evening was not, as one might have expected, collected on a Saturday night, but on Wednesday, October 21st; this was £233 12*s.* 11*d.*, and the next largest was on the night before, £189 4*s.* 8*d.* A surprisingly large sum was collected on a Thursday afternoon which realised £124 3*s.* 7*d.*, while the Saturday night of October 17th yielded only £115 12*s.* 0*d.* The fees which accrued from the car park through the generosity of the R.A.C. totalled £187 16*s.* 0*d.*, so that the total amount gained from the whole enterprise reached the not inconsiderable figure of £905 1*s.* 9*d.* The Appeal Committee have asked us to express their great gratitude to all those who helped in this very successful undertaking.

We, in our ignorance, were interested to learn the percentage of those who received notices of the Appeal who replied, and we subsequently amused ourselves by asking people for their guesses. We received answers varying from 10 to 40 per cent., but nobody guessed right. Of all those who have received notices of the Appeal 2.4 per cent. have replied, and this figure, in the experience of the Appeal Secretary, is a high one. He told us that the highest figure in his experience was 9.4 per cent., and in that case there were included 8,000 replies as a result of a broadcast. On the other hand, the lowest figure in his experience was .004 per cent., so that our own figures more than hold the balance between the extremes of optimism and pessimism. Indeed, our 2.4 per cent. of replies is an under-estimate, and there are signs that the percentage will rise higher, for last week 38,000 reminders were sent out to those who had already received notices, and to this there was a surprising response, for by the first possible return of post there were 173 answers, or an immediate return of .46 per cent., with contributions amounting to six hundred and fifty-five pounds.

Since launching the Appeal on July 16th, we now find ourselves in competition with the Hospital for Sick Children, Great Ormond Street, picturesquely styled on the posters G.O.S.H., with the Westminster Hospital, with the Royal Northern Hospital and the Cancer Hospital, Fulham. That so many great institutions should be struggling against each other at the same time for money has almost something of the unseemliness of a Stork Marathon, and in many respects the prize seems equally uncertain. But though we cannot promise to our readers the same titillating pieces of news about the rival competitors, we hope that this matter of our own Appeal will not fade entirely from their minds.

LAST Saturday, the worst and last day of October, the Rugby side recorded their first victory of the season by beating the Old Alleynians by 8 points to 5 at Honor Oak Park. This eagerly awaited and long expected event was greeted with rather mixed feelings; those who braved the rain and witnessed the rather scrappy game appreciated the cunning way the issue was kept in doubt until the very last moment for Mr. Dick to score the winning try; the College

porters, on the other hand, frankly did not believe it, and with commendable impartiality chalked up the score as a tie at five points all; whilst those of us who had remained indoors, after spending the afternoon playing that most fascinating of all games, guessing the score, went into tea not much the wiser, for though the slate said five all, it was rumoured with some certainty that the Hospital had been a goal down but a few moments from the end. However, as darkness came to end the dismal day, we seemed to hear the cry of a paper boy, " Guy's win at last ! " And indeed they had, so we retired to bed to face the Sunday papers with a quieter mind.

Still, though the game may have been scrappy and disappointing, it was no mean feat to break through their long string of discouraging reverses, and we would congratulate the team most heartily and wish them even greater successes in the future.

WE were interested to see that the premier article, entitled " The Big Airway," in the recent oto-rhino-laryngological number of the *Practitioner* was contributed by Mr. T. B. Layton, who, we hope, will soon be again contributing to our columns.

WE are led to believe that, through the generosity of the Guild of Ex-Patients, each male ward in the Hospital has been presented with a box containing games of skill and chance for the amusement of the patients. The precise composition of this compendium we have not yet learnt, but understand that sets of chessmen and draughtsmen, as well as some of the less skilful pastimes, will be included, and it is rumoured, even packs of cards. Lack of information forbids us to say more, but we feel sure that this thoughful gift will provide many hours of entertainment for the patients, and would express our gratitude to the Guild for providing them.

A DANCE is being held in the Nurses' Home on Monday, November 9th next, at 8 p.m. Tickets (3s. 6*d*.) may be obtained from the Out-Patient Department, Front Surgery, and Martha Ward.

ANY of our readers who has a child under the age of twelve years capable of writing an essay on :—

1. Keep your eyes open,
2. When I grow up,
3. The value of Animals to Mankind,

may well be interested in the " Help Yourself " Annual. This hardy plant is produced yearly with the object of helping hospitals and charitable organisations. It is sold at the price of two shillings and sixpence, and copies may be obtained from the Appeal Office. This year there are offered prizes totalling £1,000 in the form of educational grants which can be won by the five boys and five girls who are adjudged to have written the best essays on these topics. In addition to those who have reached the final *viva*, but who are not in the end successful in gaining an educational grant, prizes are offered ranging from gramophones to bicycles. This and several other competitions are quite incidental to the large amount of literary matter contained in the magazine. A number of long winter evenings with the carpet slippers can be whiled away by a half-crown expenditure on this well-known production.

Obituary

FRANK PEARSON SKEFFINGTON CRESSWELL, M.B., B.S., B.Sc. (Lond.), F.R.C.S. (Eng.).

(Reprinted from the "Lancet" of October 17, 1936)

THE death occurred on October 6th of Mr. Frank Cresswell, consulting ophthalmic surgeon to the Cardiff Royal Infirmary. The end came after a long and painful illness bravely endured.

Frank Cresswell was born at Dowlais, Glamorgan, the son of Pearson Robert Cresswell, C.B., F.R.C.S., for many years surgeon to the Dowlais Iron Works, and an early and enthusiastic follower of Listerian methods. He received his early education at Christ's College, Brecon, and University College, Cardiff, proceeding for his medical training to Guy's Hospital. He entered as an advanced student, having already obtained the degree of B.Sc. (Lond.). He took the double qualification of the English Conjoint Board in 1892, was a Prosector of Anatomy at the Royal College of Surgeons of England, and graduated as M.B., B.S. (Lond.) in the following year, obtaining the diploma of F.R.C.S. (Eng.) in 1894. He acted as clinical assistant at the Royal London Ophthalmic Hospital, and then went as house surgeon to the Cardiff Royal Infirmary, after which he began practice as an ophthalmic specialist in

Cardiff. He quickly obtained a prominent position in his specialty and was appointed ophthalmic surgeon to the Aberdare and Merthyr General Hospital, to the Royal Hamadryad Seamen's Hospital, and to the Cardiff Royal Infirmary, where he was consulting ophthalmic surgeon at the time of his death. Other appointments which he filled were those of ophthalmic surgeon to the Welsh National Memorial Association, to the Cardiff Provident Dispensary, and to the South Wales Institute for the Blind, while at the Welsh National School of Medicine he was for a time lecturer on ophthalmology. He relinquished his various appointments on reaching retiring age, but while in active work he obtained a large practice, and he used special opportunities to obtain an exceptional knowledge of the eye troubles frequent in coal-miners. He wrote little, but when he did his communications were of practical value, while he was a good teacher of students.

"Shy and diffident in manner," writes a colleague, "Cresswell was a man of considerable knowledge and wide reading, with an attractive personality which gained him many friends and endeared him to his circle. Outside the medical profession he was interested in Freemasonry, reached a high position in the craft, and travelled much on Masonic duties. He leaves a son, a medical student approaching the end of his career, with whom much sympathy is felt."

REGINALD THORPE, M.R.C.S. (Eng.).

(Reprinted from the "Lancet" of October 31, 1936)

DR. REGINALD THORPE, whose recent death is recorded, was at his consulting rooms in Harley Street, as usual, and returned home apparently in good health when the fatal seizure occurred. He qualified with the double diploma of the English Royal Colleges in 1891 and shortly afterwards went into general practice in a new district of South London, now forming part of Upper Tooting; he was the first occupant of a house in the developing district, and his extensive practice grew as the residential district expanded. From the beginning of his professional career he was attracted by ophthalmology, and had held posts as clinical assistant and out-patient officer at the Royal London Ophthalmic Hospital and as chief clinical assistant at the Royal Westminster Ophthalmic Hospital, and gradually his professional work came to centre round his specialty. He acted as ophthalmic assistant both at St. George's and Guy's Hospitals, and during the war was ophthalmic surgeon to the Grove Military Hospital, Tooting. Although holding no appointment as ophthalmologist in a teaching hospital, he became an acknowledged expert in his specialty, and was popular with a large circle of patients and colleagues, to whom the tragic suddenness of his death came as a shock.

The Principles Governing the Treatment of Chronic Empyema

A Clinical Lecture delivered at Guy's Hospital by R. C. Brock, Esq., M.S., F.R.C.S.

GENTLEMEN,—In choosing a subject for a first clinical lecture my first inclination was to avoid anything connected with a speciality in which I happen to be interested. It is, however, difficult to find a general surgical topic which is neither hackneyed by frequent use nor so rare as to be of little practical interest.

I have decided to talk to you about the *principles* governing the treatment of chronic empyema because, in addition to the great practical importance attached to the subject itself, I hope to be able to show you that these principles are the same simple, fundamental ones with which most of you are already thoroughly familiar. I hope to show you that what may at first appear to be a topic of special interest is in no way divorced from general surgery. It is true that some special skill and experience are needed in dealing with many cases of chronic empyema, but careful application of these fundamental principles will indicate the correct procedure in most cases.

In the current textbooks of surgery few subjects are so poorly dealt with as acute and chronic empyema, and it is also fair to say that in actual practice the treatment may leave much to be desired. Indeed the management of these cases is often so lacking in efficiency as to be a real slur on the name of surgery.

THE RELATIONSHIP OF CHRONIC EMPYEMA TO ACUTE EMPYEMA

It has been wisely said that the best way to treat a chronic empyema is not to let it occur. Since every chronic empyema was at one time acute it follows that if we are to approach the problem properly it is first necessary to consider the processes by which an acute empyema undergoes complete healing, and then to consider at what point and for what reasons this normal healing process is delayed or arrested.

The mode of healing of an abscess in the pleura differs but little from that of an abscess in the soft parts anywhere in the body. When an adequate incision is made for drainage pus gushes out and the cavity collapses. The active infection in the walls of the cavity (except in the case of certain specific infections) is soon overcome by the body and, provided adequate drainage is maintained, the discharge of pus gradually lessens until the cavity is entirely obliterated by fusion of its walls. The skin then heals over the surface and cure is complete.

The course of events is no different in an acute empyema. As soon as proper and adequate drainage is established, the walls of the cavity begin to come together (*i.e.*, the lung expands) and, *provided this adequate drainage is maintained* for a sufficient time, the walls fuse together by a process of granulation until the cavity is completely obliterated. The discharge of pus then ceases, the skin heals over and the empyema is cured. It should be self-evident that, until the abscess cavity in the pleura has been completely obliterated by fusion of the parietal and visceral pleuræ, the condition cannot be said to be cured. Even if the external opening should close, healing of the empyema has not occurred so long as a pocket of pus remains beneath the surface. This self-evident fact is but rarely appreciated.

It is often asked, " How long is it before an empyema can be said to have become chronic ? " Some people will like you to give an arbitrary time such as eight weeks, but I think this is not a really sound way of thinking. Providing there is adequate drainage and the cavity can be shown to be diminishing steadily in size, then it is incorrect to talk of a " chronic " empyema, even if healing should be rather sluggish. As soon as the process of obliteration of the cavity is arrested or becomes so slow as to be negligible, then the condition can be fairly described as chronic.

CAUSATION OF A CHRONIC EMPYEMA

It is now necessary to consider what are the things that cause an empyema to become chronic ; that is, what factors lead to the arrest of the process of obliteration of the cavity. It is useless to consider the proper treatment until these factors are clearly understood. Only by seeking these out can one hope to understand what should be done, and how treatment should be modified in each case to deal with the special problems that each presents.

A complete and correct diagnosis of what is at fault is the essential preliminary to all treatment, for once a correct diagnosis has been made treatment *usually* follows as a corollary. Each factor that may be responsible for the delay in obliteration must be considered before any treatment is embarked upon, and unless this is done in every case success is purely a matter of chance.

So often one finds that all the energetic measures adopted by a surgeon to treat a chronic empyema have not only failed to achieve their object, but have made the ultimate task of healing much more difficult. In addition, the patient has often become disgusted with surgery in the relief of his condition and is unwilling to co-operate in further treatment.

We must return to the simple abscess elsewhere in the body and consider why the process of healing may be delayed or suspended indefinitely. Firstly, drainage may be inadequate so that the pus cannot escape sufficiently freely for the walls of the cavity to collapse. Secondly, although drainage may be free, the body may be unable to deal with the infecting organisms in the walls, *e.g.*, there may be infection with tuberculosis or actinomycosis. Thirdly, the walls of the cavity may be so rigid that they are unable to fall together ; this is particularly so in the case of abscesses arising in bone. Fourthly, a foreign body may be present.

We are all thoroughly familiar with these factors ; they are described in the opening pages of most books on general or surgical pathology, and we have no difficulty in understanding them. They are (with certain slight modifications) the same factors that lead to chronicity in an empyema.

THE FACTORS THAT MAY CAUSE AN EMPYEMA TO BECOME CHRONIC

1. Too late drainage.
2. Inadequate or badly placed drainage.
3. Too early removal of the drainage tube.
4. Presence of a specific infection.
5. Presence of a foreign body.
6. Disease of the underlying lung :—
   - (*a*) Bronchial obstruction { benign. / malignant.
   - (*b*) Non-obstructive { bronchiectasis. / lung abscess or cyst.
7. Necrosis of rib.

If you refer to what many textbooks say on this subject you will find but a scanty and, to a large extent, inaccurate account of the causes of chronicity of an empyema. The cause that I have put last—infection and necrosis of the cut rib end—is often put forward as being of first importance, and many men, when asked, will give it as the most likely cause. The presence of an overlooked drainage tube is likewise suggested as a common event. In actual practice both of these are extremely rare, and, in fact, may be looked upon almost as curiosities.

By far the commonest cause is No. 3—too short a period of drainage—*i.e.*, too early removal of the drainage tube, and yet it is an astonishing thing that it is scarcely ever mentioned.

Next to this I would put cause No. 2, inadequate or imperfectly placed drainage, and then No. 4, the presence of a specific infection.

THE PRINCIPLES OF TREATMENT

The principles of treatment follow naturally from these considerations. Of first importance is the *avoidance* of the condition. In almost every case the trials, tribulations and perplexities of a chronic empyema could have been easily avoided by intelligent, careful and *simple* treatment at some one stage.

1. *Too late drainage.*—If evacuation of pus is delayed the walls of the cavity become rigid and sclerosed; in extreme cases they may become calcified or even ossified.

Evacuation of pus in such a case is not followed by obliteration of the cavity, since the rigid walls resist the process and a chronic discharge results, just as in the case of a chronic central abscess of bone.

2. *Inadequate or badly placed drainage.*—If any of you were opening a large abscess in the soft parts I am sure you would make a large hole and put into it a tube big enough to drain away the pus certainly and effectively. If we see an abscess which has pointed and is discharging itself spontaneously through a small hole, we always give an anæsthetic and enlarge that hole; in other words we provide *adequate* drainage. This is an unassailable principle in general surgery, and it is no less important in dealing with an empyema. Occasionally it is possible to obtain complete healing without recourse to rib-resection, but this is exceptional, and should never be thought of as a routine of treatment. I cannot sufficiently deprecate all and every method that seeks to avoid the fundamental step of rib-resection in any but exceptional cases. Only by this means can one provide a hole big enough to insert a tube that will not get blocked and will allow drainage of pus sufficiently freely to allow unimpeded expansion of the lung. You will always be reading of "new" methods for the treatment of empyema. Most of these are best described as "stunts," and they suffer a short life. Beware of anyone who tells you he has found the way to treat an empyema at any age by avoiding rib-resection. He is either founding his beliefs on isolated cases or is producing a crop of chronic empyemas.

I do not wish to be misunderstood in this remark. I am, of course, referring to the treatment of a fully formed empyema, *i.e.*, a localised collection of thick pus. In the early or formative stage when there is no localisation of the infection and the purulent exudate is thin and running, drainage by rib-resection must, of course, be avoided at all costs.

In dealing with an ordinary posterior basal empyema, even though a hole of adequate size is made, healing can be delayed indefinitely if the drainage site is placed in a faulty position. It is astonishing how often one sees cases in which the 10th or even the 11th rib has been resected. Apart from the danger of missing the pleura entirely and opening the peritoneal cavity, the drainage hole soon becomes blocked by the rising diaphragm and ceases to be effective.

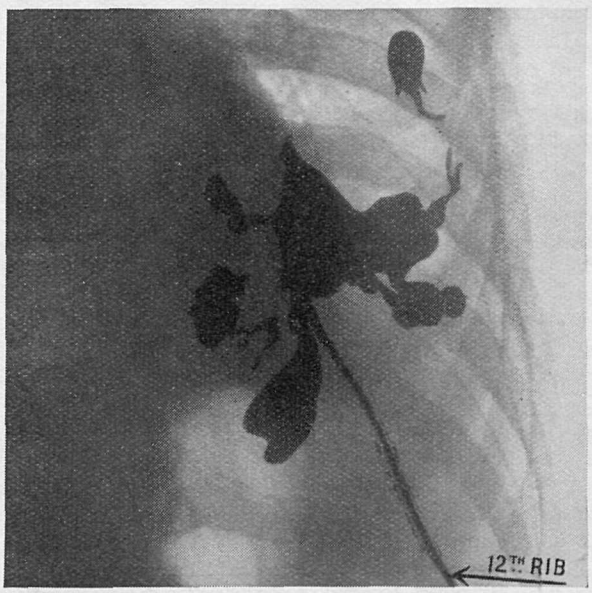

Fig. 1.
Drainage of an empyema by resection of the outer half of the twelfth rib; condition three months later.

I have recently seen a patient with a chronic empyema which had originally been drained by resection of the outer half of the 12th rib (see Fig. 1). Another fault is to place the tube too

far forward, often in the mid-axilla; effective drainage of a posterior basal empyema can never be obtained in this way, and chronicity follows. The accompanying diagram (Fig. 2) illustrates this. Redrainage further back will usually result in healing of the cavity.

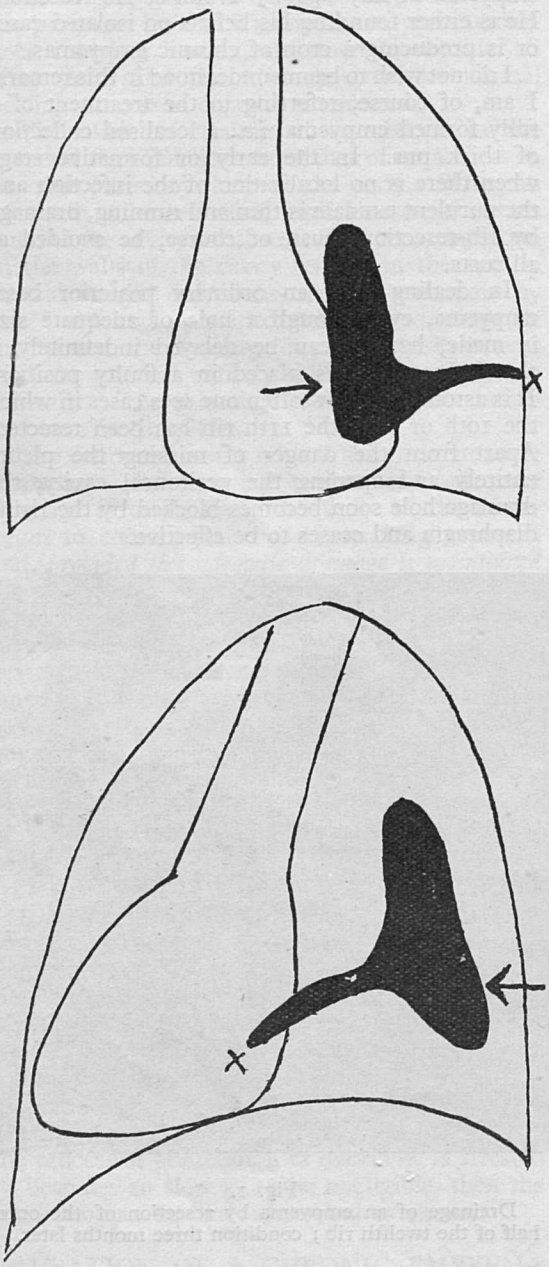

Fig. 2.

Diagram to illustrate faulty drainage in the mid-axilla. Chronicity usually follows this, and drainage should be established further back, as shown by the arrow.

3. *Too early removal of the drainage tube.*—It is astonishing how slow we have been to recognise the importance of estimating exactly in each individual case of empyema the correct time to remove the drainage tube. Generations of surgeons have been trained in their work in complete ignorance of the simple principles governing this most important decision.

If standard textbooks on surgery are consulted it will be found that the problem is either ignored or some totally fallacious statement is made. Such directions as to leave the tube in " for about two weeks," or " until the discharge ceases to be purulent," are usual and, one might also say, nonsensical. There is only one time at which it is safe to remove the tube, and that is when a cavity in the pleura can no longer be demonstrated to exist. In every patient this is a separate problem which must be worked out for the individual alone.

I have already drawn attention to the fact that in actual practice too early removal of the drainage tube is by far the commonest cause of chronic empyema, although it is scarcely ever mentioned. So long as a cavity exists in the pleura chronicity is likely to follow removal of the tube. In a certain number of cases there is little doubt that satisfactory healing does occur even though the removal of the tube is premature. The only safe way to guard against the occurrence of a chronic empyema and all the problems and misery it may cause is to leave the tube in until obliteration of the empyema cavity has taken place. This can only be assessed by X-raying the patient after the injection of lipiodol into the sinus track and thus determining its full size and extent.

Fig. 3 shows the result of such an injection in a patient whose empyema had been draining for six weeks. Many surgeons would have removed the tube even before this stage, but I am sure it is obvious to all that it would be wrong to do so with such a cavity still present.

In such a case the external opening contracts down much more rapidly than the stiff walls of the cavity can fuse together, pus becomes dammed up and chronicity follows. It is monotonous with what regularity one hears the " old, old story ": " I had an empyema operation five years ago, doctor (or it may be 10 to 15 or even 20 years), and they took the tube out after two to three weeks, but the discharge did not dry up, *and it has continued up till now.*"

If the size and extent of the cavity is carefully estimated before the tube is removed, in every case of acute empyema, the incidence of chronic empyema would drop to a very low figure indeed.

The effect of leaving the tube in for a further three weeks in the case mentioned above is seen in Fig. 4.

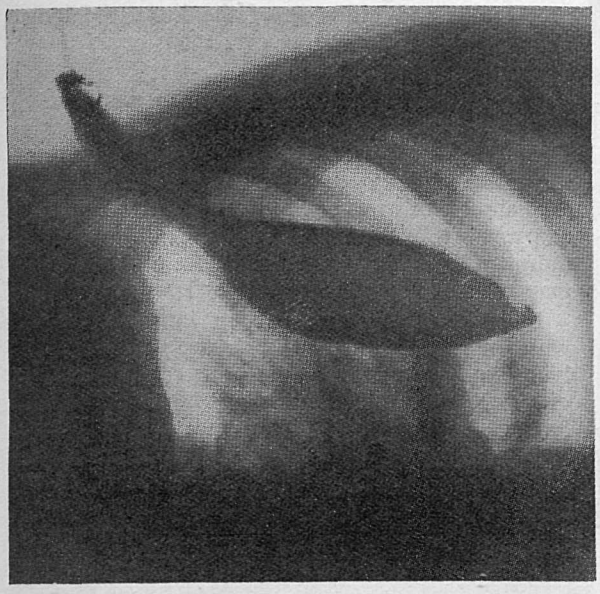

Fig. 3.

Still unhealed empyema cavity revealed by injection of lipiodol.

4. *Presence of a specific infection.*—I have already pointed out that the healing of an abscess cavity depends on the ability of the body to overcome the infecting organisms present in the walls. Tuberculosis should always be suspected in every case of chronic empyema. Even though the history be that of a typical post-pneumonic pneumococcal infection search should be made for tubercle bacilli as a routine, and a piece of pleural tissue should be removed for biopsy. It is astonishing how often an unsuspected tuberculous infection is discovered in dealing with chest diseases.

5. *Presence of a foreign body.*—I am only referring to this cause of chronicity once more to stress its rarity and to point out that even if a piece of sequestrated rib or an overlooked drainage tube should be found it does not mean that healing will necessarily follow its removal, since other factors governing chronicity may still be present.

6. *Disease of the underlying lung.*—Under this heading come some of the causes of chronicity which, although fortunately less common, may prove most confusing and misleading unless they are fully understood and recognised. The principles governing their action are actually perfectly simple and are easily elucidated, although they are often completely ignored. I have divided these conditions into :—

(*a*) Those associated with bronchial obstruction :—

i. benign.
ii. Malignant.

(*b*) Non - obstructive broncho - pulmonary lesions :—

Lung abscess,
Bronchiectasis, and
Lung cyst.

(*a*) It is a simple fundamental rule of pathology and one which many of you have heard me stress repeatedly in ordinary ward teaching, that obstruction of a hollow viscus or duct is followed sooner or later by infection. Bronchial obstruction is no exception to this rule.

The commonest cause of bronchial obstruction is malignant disease; benign intra-bronchial lesions do, however, occur, and, as I shall show you later, may prove most misleading.

The obstructing growth causes dilatation of the bronchial tree behind it, and infection of the retained secretions soon converts the obstructed lung into a honeycomb-like mass of bronchiectatic abscesses. Pleural infection follows in many cases, and very often gives rise to an illness indistinguishable from that of an ordinary pneumonia with succeeding empyema. Symptoms pointing directly to the underlying malignant growth may be entirely absent, or so slight as to be obscured.

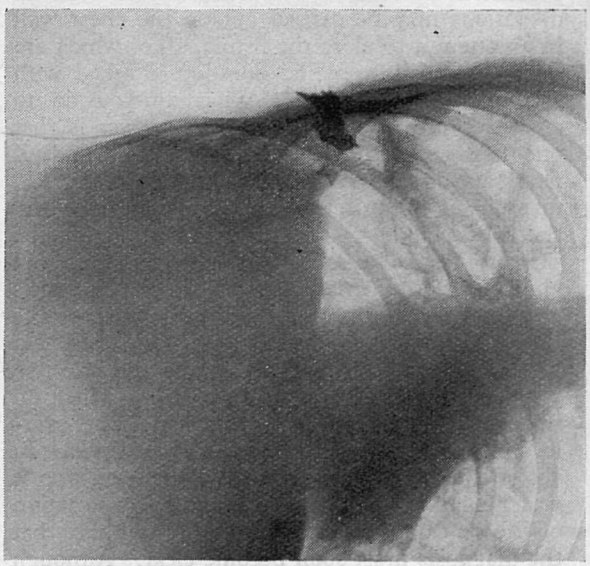

Fig. 4.

The same patient three weeks later; there is now no pleural pocket.

When an empyema which has arisen in this way is drained externally, healing can never occur while

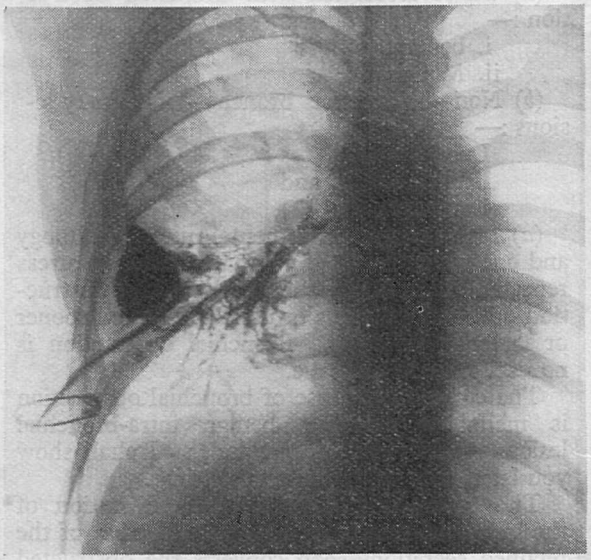

Fig. 5.

X-ray of a case of "chronic empyema." The lipiodol appears to enter a pleural pocket and then runs into a bronchus.

the bronchial block remains. The discharging sinus which persists very often leads directly into the bronchiectatic lung.

Unless the possibility of such a condition being present is considered and excluded, all sorts of operations may be carried out on the chest wall in an attempt to close the fistula, all of which are doomed to failure. The question is asked with monotonous frequency, "What do you do to close a bronchial fistula?" The answer is that one first seeks the cause of the fistula and, if necessary, treats the primary causal lesion. In many cases the primary lesion heals by itself and the fistula closes of its own accord. Should the primary cause be an obstructing neoplasm the ability to close the fistula clearly depends on one's ability to deal with the growth. It is remarkable how this relatively simple, but fundamental, fact has not been appreciated. During the last two years or so I have seen eight cases in which an underlying obstructing growth has been overlooked as the cause of a chronic chest sinus. In six of these the growth was malignant, in two it was benign. You may say that the expectation of life in carcinoma of the lung is so short that the diagnosis must soon become clear. Although in general death follows some six months after the first sign of illness, this is not always so. There is a relatively slow-growing type of bronchial carcinoma in which death may be long delayed, and it is this type which is so often first revealed by the development of an empyema.

When a benign bronchial growth causes the obstruction and infection of the lung, the long history, perhaps extending over many years, may be even more confusing.

(*b*) *Non-obstructive broncho-pulmonary lesions.*—It is perhaps not strictly true to describe this separate group of non-obstructive lesions, because it is probable that even in the presence of a chronic lung abscess or of gross bronchiectasis a secondary empyema would heal, providing free proximal drainage existed. Obstruction, in other words, may be present, but is intermittent or incomplete.

In cases of bronchiectasis or lung abscess in which there is much fibroid change in the underlying lung failure of healing of the empyema may, of course, be due in great part to inability of the lung to expand and fill the cavity.

I shall not enlarge upon this cause of chronicity except to quote you an illustrative case of a rather special form of bronchiectasis which is not infrequently the cause of a chronic discharging chest sinus after drainage of an empyema, or what

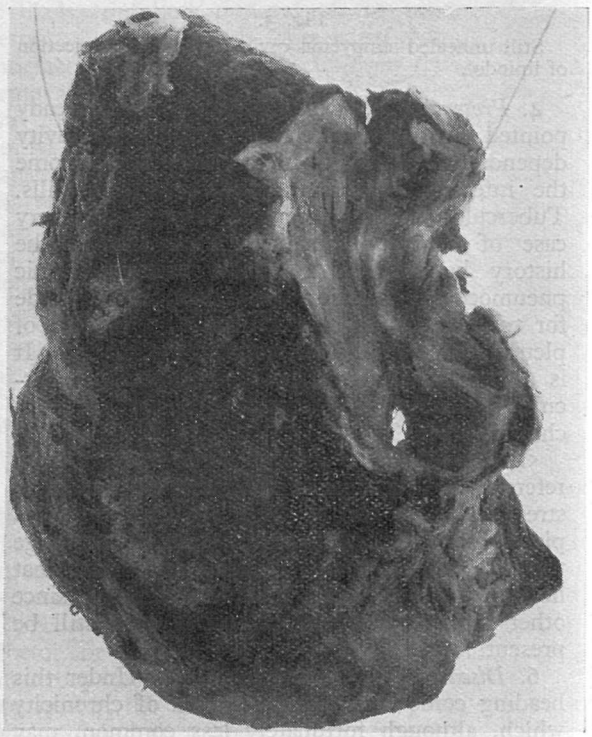

Fig. 6.

Lobe excised from the patient illustrated in Fig. 5. There is a cyst present in the lung itself, and it was this that filled with lipiodol.

may pass for an empyema. I am referring to the condition known as congenital cystic disease of the lung. You will find nothing about this

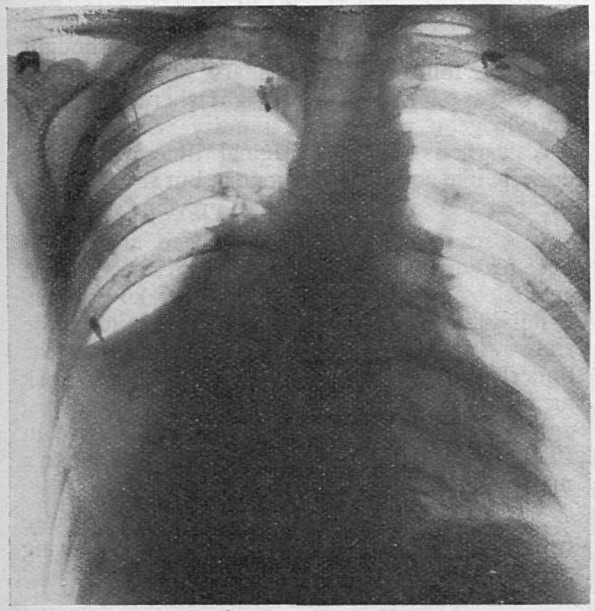

Fig. 7.

X-ray of a case of "chronic empyema." Note the mass at the hilum and the collapsed lower lobe

disease in current textbooks, and not much in the literature. Its practical importance is shown by the fact that during the last three months I have operated on three such cases which were masquerading as chronic empyemas, and during the last year have seen some half-dozen more in the practice of other surgeons. Only last week I removed from a patient a lower lobe containing a cyst which I had drained externally in May of this year, and which was then equal in size to a large grape fruit. As these cysts are lined by columnar epithelium and communicate by means of an opening of variable size with a bronchus (indeed they may almost be said to be a grossly dilated bronchus), if they are drained externally they never heal. This is firstly because the walls are often rigid and cannot come together; secondly even if they do collapse together or are collapsed by major surgical methods, obliteration of the cavity by granulation tissue cannot take place in view of this lining of mucous membrane.

The recognition of the presence of such a condition is of first importance, for only then can rational and radical treatment be adopted and futile efforts to close the fistula by major plastic operations avoided.

Fig. 5 shows the X-ray appearance of the chest in a man of 28, who had had what was apparently an ordinary pneumococcal empyema drained seven months before. Healing had never taken place, in spite of prolonged adequate drainage. The lipiodol fills what is apparently a pleural pocket and then escapes by means of a bronchial fistula into the lung. Exploration of the sinus was advised, and it was found that the cavity was not in the pleura, but was in the substance of the lung itself and was lined by a smooth eipthelium. There is only one logical treatment in such a case, namely lobectomy, and Fig. 6 shows the excised lobe with the smooth-walled cyst. The operation of lobectomy is in any case difficult in these patients in whom drainage has been performed; if in addition several attempts have been made to close the fistula by some form of thoracoplasty the difficulties and dangers are increased considerably. I mention this to emphasise once more the importance of not embarking upon operations to close a chronic empyema until one has considered most carefully the underlying cause of the chronicity.

I will conclude by giving you some examples of chronic discharging sinuses secondary to

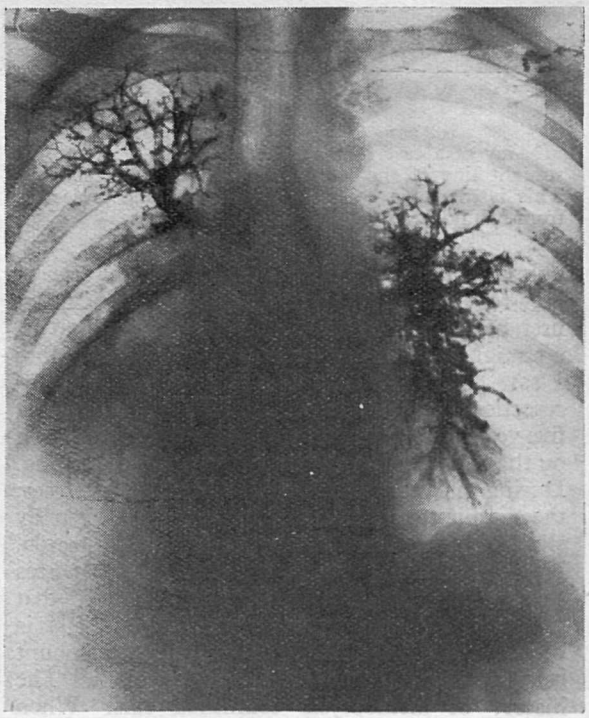

Fig. 8.

The same case after the injection of lipiodol. Note the complete block immediately below the eparterial bronchus.

obstructing neoplasms. In the first of these the bronchial lesion was benign—an adenomatous

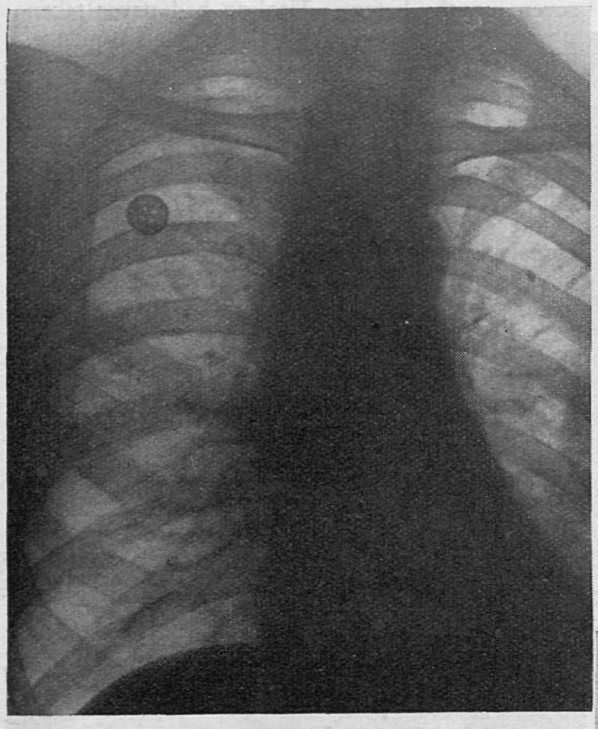

Fig. 9.

X-ray of a case of " chronic empyema." Note the straight line of the left border of the heart shadow. This is due to a collapsed lower left lobe projecting from behind it.

polyp, and the length of history gave rise to great confusion. The patient, a woman of forty, first began her illness with what appeared to be a straightforward empyema over five years before I saw her. The empyema was drained by rib-resection, but failed to heal, and during the ensuing five years several plastic operations were performed on the chest wall in an attempt to produce healing. During this time there were two brisk hæmoptyses, the significance of which was overlooked. Finally she began to bleed from her bronchial fistula. Now, if bleeding occurs in such circumstances there is only one likely explanation, namely, that the primary lesion giving rise to the fistula is bleeding, and if the hæmorrhage is large in amount it is almost certainly coming from a growth. The history of hæmoptysis confirmed this. When lipiodol was injected into the trachea it failed to penetrate beyond the very beginning of the main right bronchus, confirming the suspected bronchial obstruction.

Bronchoscopic examination revealed a typical benign adenomatous polyp completely filling the main right bronchus.

Fig. 7 shows the X-ray appearance in another case of chronic empyema which I was asked to see. As in the others the condition was thought to have followed an ordinary straightforward attack of pneumonia, although when with later knowledge a more exact inquiry was made, it was learned that the original illness was not entirely like a simple pneumonia, but the development of an empyema ended all previous doubts.

My suspicions should have been aroused at once because as you see the X-ray picture suggests an atelectatic condition of the right lower lobe. I fell into the trap, however, and explored the sinus without investigating the condition of the underlying lung. A week or two later brisk hæmorrhage from the sinus aroused suspicions, and the injection of lipiodol, as you can see in Fig. 8, showed a complete bronchial block due to a malignant growth.

My last case illustrates better than anything else could the fundamental importance of diagnosing

Fig. 10.

The result of injection of lipiodol into the sinus in the case shown in Fig. 9. The oil has run directly into the lung.

correctly the basic cause of chronicity of an empyema before contemplating any operation.

The patient, a man of 62, had had an empyema drained by rib-resection 15 months before; the sinus had at times healed over, but this healing

Fig. 11.

X-ray after the injection of lipiodol into the bronchi in the same case. There is a complete block in the lower lobe bronchus indicating a growth at this level.

was always associated with general malaise and fever. When the wound broke down again and discharged pus, fever and malaise would subside until drainage became blocked once more. Fig. 9 shows the appearance on X-ray examination, and the wedge-shaped shadow at the left base should be noticed. It is most suggestive of atelectasis of the lower lobe. Fig. 10 shows the result of lipiodol injection into the external sinus. The appearances are suggestive of filling of bronchiectatic cavities in the lung rather than filling of a pleural pocket.

Armed with these facts, namely, a chronic sinus and lobar atelectasis with bronchiectasis coming on insidiously in an elderly patient, one's suspicions should be thoroughly aroused. Further inquiry revealed that the patient had been treated by his doctor for a troublesome cough for six months before the empyema developed; there had also been occasional blood-streaking of the sputum.

Fig. 11 shows the result of a per-oral lipiodol injection. The blocked bronchus and "silent area" in the lung are almost conclusive evidence of bronchial carcinoma. Bronchoscopy revealed obstruction at this level by an ulcerated carcinoma, and biopsy confirmed the malignant nature of the lesion. It was now quite clear that the external sinus led directly into an obstructed lower lobe. Here I must stress once more to you the importance of seeking out the fundamental cause of chronicity, because it is childishly obvious, *when the full facts are known*, that no operation whatsoever on the chest wall could secure healing. Treatment is usually a simple corollary to correct diagnosis, and in this case the obvious treatment was to unblock the affected bronchus. This was achieved by the use of intra-bronchial radium and radon applicators (see Fig. 12).

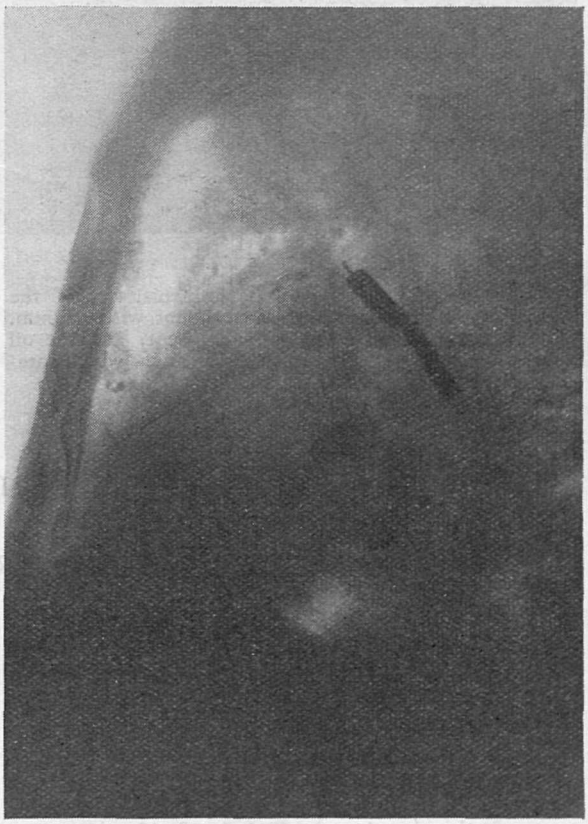

Fig. 12.

Radon and radium containers in place for treatmen of the obstructing neoplasm.

Fig. 13.

Injection of lipiodol into the bronchial tree of the same case eight months after treatment with radium. The obstructed bronchus is now patent, and the oil now runs into the bronchiectatic cavities which previously drained only to the exterior.

This was done ten months ago; the patient has gained 17 lb. in weight, lipiodol injection by mouth shows the affected bronchus is now patent, and the oil runs directly into the cavities which before could only be filled through the external sinus (Fig. 13). Bronchoscopic examination confirms the patency of the bronchus and no growth can be seen. Finally, and this is the point that I wish to stress with the greatest emphasis, the external sinus has healed of its own accord, has healed soundly and remained healed with no evidence of retention of pus and accompanying fever and malaise such as always followed even partial healing over of the sinus before. In other words, careful investigation into the basic pathology of the condition and simple treatment of the cause revealed have achieved a result which no operation on the sinus, however well done, could have achieved. Incidentally he has also had treatment for the cancer from which he was suffering.

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Some Dilated Composite Odontomes

From a Presidential Address to the Guy's Hospital Dental Society, October, 1936, by Martin A. Rushton, Esq.

MR. CHAIRMAN and GENTLEMEN,—These are a few specimens of dilated composite odontomes which we have in the Dental Section of the Gordon Museum and which have not previously been completely cut.

Into the category of dilated odontomes have been cast structures of several kinds, but those which I will show you are all closely allied and are of what has been called the fusiform type, a kind which, when it occurs, is nearly always found among the permanent teeth near the front of the mouth, but has also been seen in the 3rd molar region, and in one case in the deciduous dentition.

Fig. 1 shows a specimen of some antiquity, first described by Mr. J. Wynn-Rouw in 1889.[1] It was at that time only partly cut, and in this condition reappeared as one of the specimens examined by the B.D.A. committee which devised the classification of odontomes with which we are familiar. (No. 149 and Fig. 55 in B.D.A. Report[2].) The committee decided that this was one of the three specimens to be admitted to the category of gestant odontomes, a category which I trust will receive its official death-blow before long.

A quarter of the tooth has been consumed by

previous investigations, but enough remains to show all its principal features. It was a supernumerary tooth and was removed from the upper incisor region of a boy aged 13. It was large (19×11 mm.) and had a single cusp covered with

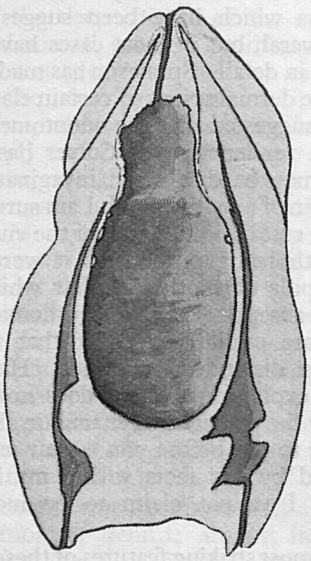

Fig. 1.

Diagrammatic view of one half. Cut surface of enamel, white; dentine and cementum slightly shaded. The internal bony shell has been removed.

enamel and a moderately dilated root. I have recently made a longitudinal section through the crown, and you will see from the drawing that this has exposed a tiny channel lined with enamel running from the tip of the cusp to the large hollow in the interior. The upper part of the hollow is thickly lined with enamel, the lower part with dentine only. In the thickness of the dentine walls is seen the flattened dental pulp. The central hollow was not empty, however, but was filled with an egg-shaped shell of calcified tissue, which was originally adherent in places and part of which has been cut away. It may have been this circumstance which led to the classification of the specimen as a gestant odontome. But the shell appears to be formed of dense bone and not dental tissue, and the fact that this ossicle has two foramina just beneath the channel at the tip of the tooth shows that whatever tissue was formerly contained in the central hollow received a blood supply through this channel. We are also able to say that the tissue contained in the hollow was partly enamel-forming epithelium and partly tissue capable of forming bone. The remainder of the specimen shows that the central hollow had also a small opening at the root end, though whether there was any blood supply through this we cannot tell since that end of the ossicle has been cut away.

The next specimen (Fig. 2) is similar in many ways (19×11 mm.). It was removed from the upper incisor region, but whether supernumerary or not we do not know. It also has a single cusp and an expanded root, and had a calcified body rattling about inside. There was a tiny dimple at the tip of the crown and, by cutting the tooth near to this and careful grinding, a fine enamel-lined channel into the central hollow was exposed. Again we see the flattened pulp cavity in the walls of the specimen, and again we see that the central hollow is open at the root end. But in this case the hollow is almost completely lined with enamel, and the latter even passes out on to the root end of the tooth. The side wall, which is thin, has been fractured in one place. The loose body within has several foramina in it; it has not been cut. This specimen shows us that the tissue originally contained in the hollow had dental epithelium at its periphery all round, and not least at its deepest part.

The next specimen (Fig. 3) is smaller (15× 9 mm.) and was removed from the left upper lateral incisor region of a girl of 19 by Mr. Wandless, there being infected bone above it and no lateral incisor present. The side of the tooth has been fractured in one place and the tooth has been divided longitudinally. The section does not show any channel through the tip of the cusp, but near this tip there is a depressed spot, and

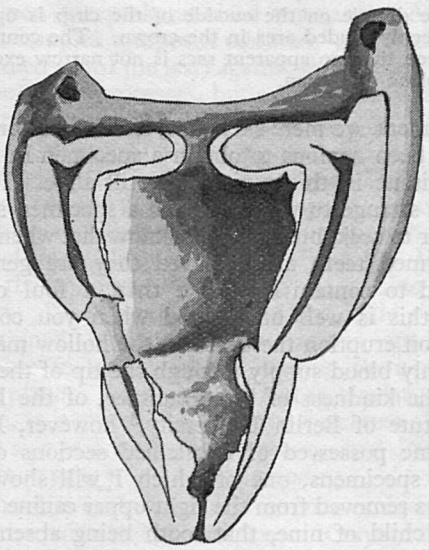

Fig. 2.

View after removal of one wall Internal calcified body not shown.

I believe that if a section were made in this region such a channel would be exposed. You will notice that the central hollow in this specimen is not open at the root end, and if I am right in supposing that a channel through the cusp is present, we can say that whatever tissue formerly occupied the space must have received its whole blood supply from that source. The hollow is almost completely lined with enamel, and there is quite a fair pulp cavity at the root end of the tooth, as well as the flattened spaces in its walls.

Our knowledge of the tissue contained in the hollow has been limited by the fact that these

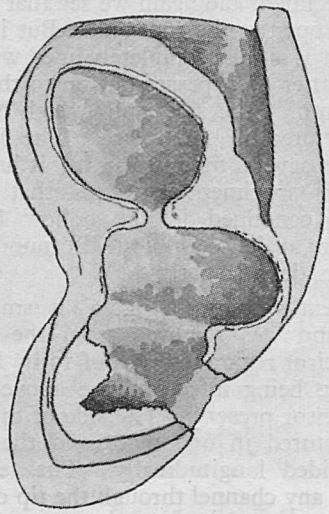

Fig. 3.

The dimple on the outside of the cusp is opposite the deeply shaded area in the crown. The connection between the two apparent sacs is not narrow except in this plane of section.

specimens are mere skeletons, and I have for some time been anxious to obtain a specimen in which the tissue in this cavity was still alive. It may seem strange to you that such a specimen should be far to seek, but you must know that when these deformed teeth are removed they are generally found to contain little else than a foul odour; and this is well understood when you consider that on eruption the tissue in the hollow may lose its only blood supply through the tip of the cusp. By the kindness of Dr. Hammer, of the Dental Institute of Berlin University,[3] however, I have become possessed of decalcified sections of two such specimens, one of which I will show you. It was removed from the right upper canine region of a child of nine, that tooth being absent, and was unerupted. You will see that the hollow, which is closed at the root end, contains living connective tissue and bone, and at its periphery decalcified enamel and Nasmyth's membrane. This section also shows the channel through the cusp for part of its length.

On examining these specimens, and others in various collections, I was interested to find out the manner in which they might arise. The explanations which have been suggested in the past are several, but in most cases have not been worked out in detail. Sprawson has made comparison with the dermal spines of certain elasmobranch fishes and suggested that the odontomes might be atavistic in tendency; and Colyer has supposed that they may be due to an invagination of the enamel organ of a tooth (which I am sure is correct) or, in some cases, to the result of the enamel organ of one tooth being pushed, as it were, into the dentine papilla of another, a view which is more difficult to accept. Other suggestions have been that they are calcified cysts or that the central hollow was distended by fluid. Hammer has offered an explanation which does not, however, account for the presence of enamel in the hollow.[4] I am going to put before you a view which is not contradicted by any facts within my knowledge, but which I cannot claim to be more than a speculation.

One of the most striking features of these structures is the evidence of what one might lightly call the selfish and unneighbourly behaviour of the tissue which occupied the central hollow. There is every appearance that this tissue not only compressed the walls of the tooth against the crypt in which it lay, but was possessed of such vigour that it was able to expand the crypt as well as the tooth.

Such behaviour leads one to think that this tissue was of the nature of a benign neoplasm, while the rest of the tooth, which one might regard as the injured party, was not. Tentatively I shall call this aggressive tissue an adenoma.

PRESUMED MODE OF FORMATION OF DILATED COMPOSITE ODONTOMES

(*Fusiform Type*)

The development of the malformation commences in the enamel organ of a normal or a supernumerary tooth or even in that of a denticle of a compound composite odontome at about the time when dentine formation commences. Although I have said that the development of the malformation commences in the enamel organ, we must not overlook the possibility that it may already be determined in the fertilised ovum. If one recalls the case of Schmitz and Witzel,[5] where compound composite odontomes were present in two brothers, and also remembers that the enamel organ mentioned is sometimes that of a supernumerary tooth, itself an abnormal structure, and

that supernumerary teeth may be inherited, one cannot rule out this possibility. The odontome can be regarded in a sense as of two parts—the injured tooth, and the neoplasm which causes the injury.

At the time mentioned some cells near the centre of the deep surface of the enamel organ take on abnormal growth, proliferate in a deep direction at a great rate, and by their bulk invaginate the dentine papilla. The abnormal proliferation, which I will call an adenoma, has a blood supply and a connective tissue core derived from the superficial tissues, and the point where it started growth remains the pedicle of the tumour. Meanwhile the rest of the germ develops nearly normally, forming a ring of enamel and dentine about the pedicle.

The epithelial cells of the adenoma have some or all of the following properties: they form enamel when in contact with dentine; they provoke the formation of odontoblasts and dentine in dentine papilla tissue; and they grow with more vigour than the neighbouring tissues and by their growth compress the latter.

The adenoma thus forms enamel and provokes the formation of dentine around its periphery, except at first (or at all) on its deep surface. The exception may be due to the rate of growth on this surface, the direction in which growth chiefly occurs, or to the papilla soon coming into contact with the deep aspect of the bony follicle.

The deposition of enamel and dentine on the outer walls of the tooth proceeds almost normally, but on the inner walls surrounding the adenoma, more irregularly. The growth of the latter presses the incompletely calcified dentine walls and dentine papilla outwards so that they are thinned and the deeper part of the bony follicle becomes enlarged. The part already calcified cannot be expanded, so that in cases where pressure is great the tooth becomes rapidly wider from the cusp rootward. The central pressure must force the crown in a superficial direction and may help to cause its common conical shape.

After a time growth of the adenoma gradually ceases. This is probably partly due to the fact that its maximum blood supply was fixed from the beginning by the calcified ring around its pedicle, and that even this ring has been diminished by the deposition of further enamel on its internal aspect; and also due to the growth having a limited life of activity in any case.

Growth of the whole tooth may now cease, the tooth remaining wide open or partly open at the base (like Graves Morris's specimen, R.C.S. Museum, od. sect., D. 168.3). Or formation of the walls of the tooth may continue, around and deep to the adenoma, and the latter may deposit more or less enamel on the internal dentine wall.

The outer walls formed after the adenoma has ceased to grow fast, curve inwards towards each other following the contour of the bony crypt so that the diameter of the tooth is diminished towards its deepest part, and the central hollow becomes closed at the base by the inner wall. The root-end may, however, be enlarged by a thick terminal formation of irregular dentine and cementum.

The connective tissue core of the adenoma may finally become transformed partly or wholly into bone.

In some cases the adenoma does not maintain such a central position, but may compress one part of the walls of the tooth particularly so that no enamel or dentine is formed there and a hole remains in the side of the tooth. It may go further and so advance in that direction that the whole dentine papilla is pushed to the opposite side of the crypt, and the "roots" of the tooth will then have a meniscus or "hooded" shape, and there will be an escape-hole nearer the crown, perhaps surrounded by a patch of enamel.

The life of the epithelial cells of the adenoma seems similar in kind though not necessarily in duration to that of the cells of the normal enamel organ or of the kindred growth which causes the complex composite odontome.

First they form enamel and also provoke dentine formation, then they may provoke dentine only, and finally they cease to do this even and leave no trace of their behaviour in the mature specimen except keratinised remnants. And, as in the complex composite odontome, no hard tissue is formed (until the last) against the actively growing points or processes, but only against the more mature cells at the flank of the column.

In considering the suggestion which I have made you will at once recognise that if it is sound then all specimens of dilated composite odontomes to which it is intended to apply should have an enamel-lined channel, even microscopic, leading from the hollow in the tooth to the outside of the crown. Whether this is so or not could only be determined by cutting the various specimens available in museums and cutting them in the right plane. Since the channel is almost microscopic, it is essential to cut the specimen slightly to the side of it, parallel with its expected direction, and to expose it by careful grinding.

What has been written is in no way discordant with the published observations of Colyer,[6] who in his important and original paper in 1926 illustrated a series of abnormal teeth from the premaxilla, some very like those you have seen, showing in

small gradations what could be regarded as the intermediate stages between a small invagination of the dentine by the enamel such as occurs in a deep coronal sulcus or pit and at least one type of dilated composite odontome.

The fact that one can arrange such a graduated series means that we cannot draw a line between the specimens where there is simple hyperplasia of the enamel organ and its mere crumpling and those where the hyperplasia may be called adenomatous. It does not mean that the pathology of specimens at each end of the series is the same, and Colyer, of course, did not make any such suggestion.

RELATION OF COMPLEX AND FUSIFORM DILATED COMPOSITE ODONTOMES

The pathology of the fusiform dilated odontome here suggested seems to be very similar to that of the complex.[7] Both are due to an adenomatous growth of dental epithelium which has a limited life of activity and in which the epithelial cells are not co-ordinated as in the compound composite odontome. The difference in the result seems to be merely related to the time at which the adenoma commences. When the adenoma starts in the tooth band (the cells not being co-ordinated) the result is a complex odontome. When it starts in a young tooth-germ the result is likely to be a complex odontome, partly formed by the epithelial cells of the germ which are not adenomatous as well as by those which are. When it starts in a late tooth germ the result is likely to be a dilated odontome. The important differences in the behaviour of the adenoma in the complex and dilated varieties is that in the former it is branching in habit and in the latter a club-shaped mass. This is probably only a function of the ageing of the epithelium which has taken place between the two stages. The difference in the clinical result is due to the fact that in the dilated odontome there is much epithelium in the germ which is not adenomatous as well as that which is, whereas in the complex the non-adenomatous part of the epithelium is relatively unimportant when there is any present at all.

I am indebted to Mrs. Lilian Lindsay for her kindness in drawing my attention to many interesting case-reports.

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Correspondence

Stammering

To the Editor of the GAZETTE

SIR,—May I beg for space in your columns to answer the letter from Miss Honor Baines, published in the *Gazette* on October 24th? First, I should like to thank her for her criticism and information, which is always welcomed by anyone in search of the truth.

Miss Baines calls the correction of the stammering habit through voice production—my method; may I correct her? This system has been used continuously for more than half a century; I possess books which were written by doctors—E. B. Shuldman, M.D., in 1879; William Abbott, M.D., in 1883, and A. G. Bernard, M.R.C.S., L.R.C.P., in 1889—all of whom state that stammering is caused by *lack of control of the vocal cords*. To my personal knowledge this method was used in the '90's and has been in use ever since, and is likely to be used by all who study the voice first and stammering afterwards.

Miss Baines admits that for many years those in charge of the L.C.C. Clinics taught that faulty breathing caused stammering, but that this erroneous theory has now been corrected, and that it is now realised that stammering causes faulty breathing. This error might have been corrected many years ago, if the L.C.C. had been willing to compare their methods with those of other people. It may interest Miss Baines to hear that as recently as July, 1935, there were present at a Speech Conference at which I was speaking several people who had been trained for speech therapy by the L.C.C. method; these people still held to the opinion that faulty breathing caused stammering. They evidently had not been informed that the opposite view was now held by those who had originally trained them.

Miss Baines doubts if I am speaking seriously when I say that I see no useful connection between relaxation of the arms and the production of open tone; she further seems to state that relaxation of the arms is essential for a good open tone. What does she mean by "good open tone"?

Does she refer to speech or song? I would remind her, however, that we are not bi-vocal, we use the same mechanism in speech and in song. If, therefore, relaxation of the arms is necessary for "good open tone" in speech, it must also be necessary for "good open tone" in song. In which case can she explain how singing and action are combined in grand opera? In actual fact, although intercostal control is not necessary for speech because so little complementary breath is required, when such control *is* necessary, as it unquestionably is, in song, it is assisted by co-ordinate movements of the arms, and would be actually hindered by their forced relaxation.

When the stammerer is unable to speak it is because he has lost muscular control of his vocal cords; to teach him this control by general relaxation seems to me to be illogical.

It is quite true that the opportunity of observing the work of an L.C.C. speech clinic has not been offered to me for a great many years, but on the single occasion when I was present *reading in chorus* was the method employed, so I must apologise for not knowing that stammerers are now encouraged to read alone.

Yours, etc.,

H. ST. JOHN RUMSEY.

Guy's Hospital,
S.E.1.

St. Aubyn's Heart

To the Editor of the GAZETTE

SIR,—I am writing to you in the forlorn hope of laying the ghost of the late Mr. William St. Aubyn.

Anyone who went through the Pre-Clinical Class between 1928 and 1934 or who faced the Conjoint examiners during that period will remember this case of cardiac disease.

In 1934 he died in a Surgical Ward following an operation, and at the post-mortem he was found to have aortic stenosis and regurgitation. His mitral valve was normal. I was not present at the post-mortem, and for some reason unknown it was stated afterwards that St. Aubyn had been taught on as a case of mitral stenosis both in the Pre-Clinical Class by me and at the Conjoint Examination by members of the Staff. Some one mentioned the case to me with a certain pleasure, since there is always more general joy in the one diagnosis which is incorrect than in the ninety-and-nine which are dully correct. I thought nothing of it at the time, and, beyond denying that it had ever been said that he had mitral stenosis and beyond looking up my notes to confirm this statement, I took no further notice, and I even savoured that righteous smugness which is the portion of those who are falsely accused of being wrong while knowing they are right.

I would not have taken any further steps had I not discovered in 1936 that St. Aubyn's heart was becoming a sort of King Charles's head, produced whenever it was sought to show the futility of physical signs. The legend is growing with terrifying velocity; two years ago I was told that St. Aubyn was found at autopsy to have only aortic disease when he was supposed to have mitral stenosis as well. Now I hear, indirectly, that not only did he not have mitral stenosis, but that he did not have aortic disease either. To-morrow it will be said that St. Aubyn turned out at autopsy to be an acardiac monster.

I have looked up my notes kept up to date since 1928 and also the ward reports of his many admissions, and the facts are as follows:—

William St. Aubyn was diagnosed as having aortic stenosis and regurgitation with a normal mitral valve as far as could be ascertained, and was so taught on by me for several years. He was admitted to the Medical Wards nearly ten times and was seen by five different physicians. On none of these ten occasions was he said to have mitral stenosis by any of the physicians, registrars, house physicians, out-patient officers or clinicals who looked after him, and of the baker's dozen of ward clerks who wrote up his notes, only one was found who had profited so little from his instruction that he diagnosed mitral stenosis. In life St. Aubyn was a case of aortic stenosis and regurgitation, and in death he remained so.

I realise the limitations of physical signs as well as their value; I am no pedant who splits hairs about their minutiæ, and I realise that it now does not matter a row of pins what valvular lesions St. Aubyn had, but I think it unfortunate that the value of physical signs as a whole should be called into question by an example which is false from its inception. Clinicians expose themselves to blows, but if they are to be beaten for the good of their souls, let them be beaten with sound sticks and not with rotten ones.

Yours, etc.,

E. R. BOLAND.

Guy's Hospital,
S.E.1.

Sport

Rugby

Guy's v. Gloucester

AT Kingsholme on Saturday, October 17th, Guy's were heavily defeated by 6 goals (1 penalty) and 4 tries (40 points) to a placed goal and 2 tries (11 points).

The Hospital were very unfortunate to lose the services of Halamandres, who dislocated his shoulder early in the game. After this misfortune, Yerbury was taken out of the pack to fill the gap, but the forwards were unable to hold the powerful Gloucester octette.

Boughton, the English International, returned to the home side after several weeks' absence, and was in great form, converting five of the tries and kicking a penalty goal.

Gloucester had the benefit of a blustering wind which blew almost straight down the field, and, following two scrums in midfield, at once attacked the Hospital line. In trying to clear one of the Hospital backs just failed to find touch and Hook raced up, took the ball on the run, passed inside to Edwards, who scored easily for Boughton to convert.

Gloucester took charge of the game from the restart, but Guy's tackling was deadly and checked several forward rushes which looked promising. Hook missed a fine opportunity when he failed to gather a pass from Edwards, and soon afterwards the same player was splendidly tackled by Halamandres, who was injured in his effort.

Offside against the Hospital, following a scrum in their 25, gave Boughton an opportunity to land a splendid goal from near the touch-line.

Although the football was fast and keen, the home side were doing most of the attacking, and, with Yerbury uncertain in his strange position, Edwards had little difficulty in finishing off a movement behind the posts for Boughton to add the goal points.

In spite of their handicap Guy's persevered and, in a breakaway, reached the Gloucester 25 for the first time. Here Allen picked up in the loose, dodged through and handed to Dick. A sharp transfer to Wright was well taken, and the latter went over with a capital try, which was not converted.

The Gloucester forwards now dominated the scrums and line-outs, and near the interval increased their advantage when Williams, Phillips and McCanlis carried out a fine movement, for the winger to score an unconverted try.

Crawford made a splendid run for Guy's soon after the restart, and broke clear of opposition, but Boughton brought off a timely tackle and transferred play to the other end of the field.

Guy's now defended desperately, but, after stopping a forward rush, Day picked up from a loose scrum and dodged his way over the line for another try, which was not converted.

A little later McCanlis gave an inside pass to Williams, who scored under the posts for Boughton to add the goal points.

The Hospital livened up for a time and, profiting from mistakes made by their opponents, once again found a footing in the home side's 25 following a good run by Crawford.

Following a scrum, Stanyon-Jaques received and flashed over the line for a good try, and Kark kicked the goal.

For a few minutes Guy's, encouraged by their success, were very much on the aggressive, but found the defence equal to the occasion. Then the Gloucester forwards broke away, with Price to the fore. After a run of thirty yards, Price passed to Welshman, who repassed to Price to score a simple try.

Towards the end Guy's lapsed, and Hook scored two good tries, which Boughton converted. However, Guy's managed to score again through Stanyon-Jaques, who registered a try, and Gloucester replied with another unconverted try.

Team.—C. Halamandres; C. G. Wright, R. C. S. Dick (Capt.), J. van A. Steytler, J. P. Crawford; R. D. Allen, K. A. Stanyon-Jaques; M. R. Kark, E. S. Nicholson, H. H. Crabb, J. D. Williams, I. G. Robin, C. S. Darke, P. Fletcher, R. O. Yerbury.

Guy's v. Harlequins

THE Harlequins visited Honor Oak Park on Saturday, October 24th, and defeated the Hospital by 4 goals, a penalty goal and 2 tries (29 points) to 2 goals (10 points).

The Quins' back row forwards—Bolton, Hamilton-Hill and Thompson—were in devastating form, and were mainly responsible for their side's success.

Sharp took the place of the injured Halamandres at full-back, and last-minute changes had to be made in the Guy's side owing to Steytler damaging a leg and Fletcher being unable to play.

The ground was perfect and the conditions ideal when the Quins kicked off facing the sun

and breeze. Within two minutes the visitors had taken the lead when, following a kick ahead by Wright, most of the Hospital team were caught offside, and K. H. Chapman landed a fine penalty goal.

However, this reverse did not deter the Hospital, who went off at a cracking pace and very quickly took the lead. Following some excellent work by Nicholson, the latter led a magnificent forward rush to the Quins' 25, when the visiting threes fumbled the ball. Wright gathered very smartly, flashed between Horsley and Robinson, past the full-back, to touch down for an excellent rry, and Kark added the goal points with a fine kick from near the touch-line.

The Quins retaliated with a spectacular passing movement in which forwards and backs participated; the ball was carried over the line, but luckily Wright came across at great speed and touched down.

Keeping up the pressure the visiting forwards carried out another passing movement, and near the line a long pass was sent to Horsley, who had no difficulty in crossing for an unconverted try.

The next incident was a great effort by Stanyon-Jaques; stealing away on the blind side of the scrum he made a capital opening for Stewart and Dick. The latter drew his man before passing to Wright, but unfortunately the Hospital winger was thrown into touch near the corner flag.

Following an unsuccessful appeal for a mark by Sharp, the Quins set up a hot attack, which ended in Bolton crashing his way over for a try, which Chapman converted.

Robin intercepted beautifully and, after a run of twenty yards, passed to Darke, but the latter's pass was taken by Napper. A rapid bout of passing and interpassing followed between Thompson and Bolton, which ended in Bolton having a clear run in behind the posts, but Chapman sliced his kick at goal.

The second half opened sensationally, for the Hospital scored a glorious try almost from the kick-off. Allen got the ball in the loose, sent out a quick pass to Stewart, who raced through at top speed with Dick and Wright in attendance. Dick sighted a gap in the defence and went through like a rocket, for Wright to score near the corner flag. Kark completed the movement by kicking another fine goal from near the touch-line.

This effort deserved all the applause it received, and with only four points separating the sides, it appeared that Guy's would put up a close fight.

However, from now onwards the visitors were on their toes and dominated the play in the loose, where Guy's were unable to stop the clever and intelligent anticipation of Bolton and Hamilton-Hill.

Only five minutes had passed when Allen allowed the latter to slip through his fingers to score another try, which he also converted.

Soon afterwards Robinson, the visitors' right centre, was injured in tackling Dick and, during his temporary absence, Guy's came near to scoring on two or three occasions.

Another splendid effort between Stewart, Dick and Wright came to grief when Hamilton-Hill just managed to catch Wright's heels only a yard or two from the line.

Guy's were gradually forced back, and were compelled to touch down twice in quick succession.

From the second kick-off Bolton ran through the Hospital defence without a hand being laid on him and a little later Horsley rounded Wright and Sharp and scored behind the posts. Hamilton-Hill placing the first goal and Chapman the last.

In the closing stages Guy's made a desperate effort to reduce the arrears. First Crawford made a fine run on the left, only to be pushed into touch near the corner flag, and then Stewart, Dick and Wright carried another movement, which ended when Wright was again brought down just short of his goal.

Team.—C. G. Sharp; C. G. Wright, R. C. S. Dick (Capt.), I. McD. Stewart, J. P. Crawford; R. D. Allen, K. A. Stanyon-Jaques; M. R. Kark, E. S. Nicholson, H. H. Crabb, J. D. Williams, I. G. Robin, C. S. Darke, R. O. Yerbury, G. O'Gorman.

Guy's v. Old Alleynians

GUY'S obtained their first success of the season on Saturday, October 31st, when they defeated the Old Alleynians at home by a placed goal and a try (8 points) to a placed goal (5 points).

A strong cross-wind accompanied by heavy rain made the conditions very difficult, but, in spite of this, a most exciting game was seen, and the few spectators who braved the conditions were rewarded with a rousing finish.

Three changes were made in the side which represented the Hospital at Gloucester. W. B. Sanders, a freshman from St. Edwards, Oxford, occupied the position at full-back. F. Walt displaced Yerbury in the pack, and Wright was unable to play owing to examinations; L. G. Morey was given his opportunity on the right wing.

There were very few incidents of note during the first half, except some fine defensive play by Allen and Sanders, who made a promising debut.

The latter brought off two splendid saves, and, in spite of the close attentions of at least three forwards, managed to fight his way clear and find touch.

In the early stages the Old Boys' full-back was not very reliable, and on three occasions was caught in possession near the line, but Guy's were unable to profit by his mistakes.

At the end of five minutes Guy's were awarded a penalty for offside and Kark made a great effort against the wind, but his kick fell just short of the cross-line.

The Old Boys roused themselves, and Young, Agazarian and Bethell-Jones led a fine forward attack to the Hospital's 25, but Allen cleverly broke through, but his low pass was knocked on and very little ground was made.

Allen and Dick combined in another movement which carried them within fifteen yards of the line, when Dick passed to Morey, who was pushed into touch.

Guy's were getting the ball fairly regularly, but faulty handling and poor passes spoilt several promising efforts. They were playing with plenty of enthusiasm, and their backing up was an improvement, but nothing seemed to go right. On one occasion Stewart followed up a punt ahead, collared the full-back with the ball, when one of the Hospital forwards rushed up at full speed, but overstepped the ball, with no opposition anywhere near.

Griffiths nearly caught the Hospital defence napping when he followed up a huge kick from his own 25, but in a desperate race from half-way Crawford managed to get to the ball first and clear.

The Old Boys' forwards made a furious onslaught and were five yards from the line when Sanders saved brilliantly, wriggled himself clear and set Stewart and Dick in action. However, the movement did not get far and, just before half-time, the visitors were handicapped as the result of an injury to Pettifer, their right wing, who strained a leg muscle and took no further part in the game.

Early in the second half Stanyon-Jaques broke away on the blind side, but had no support to carry on, but a little later Allen found touch and, following a scrum, Walt and Williams led a good rush and kicked the ball over the line, but the Old Boys managed to touch down.

From the kick-off Griffiths and Pettifer passed and inter-passed along the right and covered some forty yards before Robin intercepted and led a counter-rush to the Old Boys' 25.

In spite of the fact that they had only seven forwards, the Old Boys were putting sufficient energy into their methods to make up for being one short, and were often threatening danger. Their efforts were rewarded after twenty minutes' play, when Kinghorn ran through, cross-kicked, and Agazarian rushed up to touch down under the posts, for Griffiths to add the goal points.

This was a big blow to Guy's, and against the run of play, but they stuck to their task and in the last ten minutes staged a grand revival.

On two occasions Crawford made good runs down the wing, and at the second attempt he kicked across the goal front, where Stewart fastened on to the ball and touched down under, for a try which Kark converted.

Guy's were an inspired side, and carried all before them. The forwards made several dashing raids, which the Old Boys were fortunate to stop. Another good run by Crawford was held up on the line, but he managed to pass inside to Stewart, who raced on and gave to Dick, and he went in at the corner with a try which secured the victory.

Team.—W. B. Sanders; L. G. Morey, R. C. S. Dick (Capt.), I. McD. Stewart, J. P. Crawford; R. D. Allen, K. A. Stanyon-Jaques; H. H. Crabb, E. S. Nicholson, M. R. Kark, I. G. Robin, J. R. D. Williams, F. Walt, P. Fletcher, C. S. Darke.

Hockey

Guy's v. High Wycombe

THE Eleven played their first game of the season on Wednesday, September 30th, when they beat High Wycombe by 5 goals to 2 at Honor Oak Park.

Guy's took two or three minutes to settle down, during which time the opposing forwards gave us an object lesson by taking an opportunity given them and scoring a quick goal.

This early stimulus seemed to get the side working well together, and they held the advantage territorially for some time. Leeming, playing at centre-half, bound the side together excellently and got the forwards moving by sending long well-placed passes to make both wings run strongly. But, as is usual at the beginning of the season, it was some time before we scored, when Martin equalised with a hard, well-placed shot just before half-time (1—1).

In the second half Guy's kept up the pace, and so well was the team combining that four goals were scored to our opponents' one. It was the first game of the season for High Wycombe, so

that their opposition was not as strong as we anticipate it will be later in the season. But it was the way in which the Guy's team set about their work that promised so well for the future. Franklin (2), Bough and Hinde scored the other four goals, to our opponents' one (5—2).

Team.—J. H. Smart; T. C. Thorne, J. S. Astbury; A. C. Greene, J. A. L. Leeming, C. F. Wright; J. B. Franklin (Capt.), E. B. Rowe, E. J. Martin, G. C. Bough, E. J. F. Hinde.

Guy's v. Bart.'s

THE Eleven followed up their win against High Wycombe in the first game of the season by beating Bart.'s by 3 goals to nil at Honor Oak Park on October 7th. As two of the regular forwards and Leeming were away, this seems quite a creditable performance.

Guy's started off well and kept the ball in their opponents' half for some time without scoring. Bart.'s forwards then raided the circle several times; the backs, however, were clearing well and only once or twice was Smart called upon to save. The game then went back to the Bart.'s 25, and Cox opened the scoring with a hard shot from an angle (1—0).

Guy's continued to have rather the better of the play. The Bart.'s forwards did not seem to have played much together, and their attack consequently lacked the bite which the Guy's forwards showed. Franklin ran cleverly down the left wing on numerous occasions, and several times goals were nearly scored. The Bart.'s goalkeeper, however, was playing well, and it was a little time before Greene took the ball to the edge of the circle and scored (2—0).

After this we continued to press, but both sides raided their opponents' circle a number of times without scoring. The Guy's forwards looked more dangerous near goal for they were combining well. Franklin then ran strongly down the wing, bringing the ball into the circle and shooting from a wide angle. The shot was saved, but Martin, following up, put the ball in (3—0).

After the interval the scoring was more level, but Guy's held the advantage territorially; however, the Bart.'s forwards made several dangerous rushes. The backs were safe, so that Smart, who was kicking well, rarely had to clear.

The backs were combining promisingly and placing their clearances to get the forwards moving well. Several corners were forced, but Thorne had bad luck not to score on a number of occasions, and the game came to an end with the score 3—0.

Team.—J. H. Smart; T. C. Thorne, J. S. Astbury; E. Smith, A. C. Greene, C. F. Wright; J. B. Franklin (Capt.), E. J. F. Hinde, E. J. Martin, D. A. Hamilton, B. M. Cox.

Guy's v. The Metropolitan Police College

THE hardest game we have played so far this season was against the Police College at Hendon, when we were beaten by 2 goals to 1 on Saturday, October 21st.

The training of our opponents was so superior to our own that their forwards had a dash which seemed to take our backs rather by surprise, so that two goals were scored against us in the first ten minutes of the game before they had properly found their feet, but it must be recorded that this was not entirely due to them.

After these first ten hectic minutes the side suddenly discovered that, although not so fit as their opponents, they considered themselves equally good hockey-players, and from then on the game was as fast and even as could be wished. Both sides sent long sweeping passes to their wings and down the centre, so that the game travelled rapidly from end to end. Play was so even that no further goals were scored, and half-time came with the score 2—0.

In the second half the team did a thing which seemed impossible; they not only kept up the great pace right to the end in the face of superior fitness, but they scored one goal to none. Phillips, transferred to the wing to change with Cox, was running and centring well, and Franklin was as evasive as ever. The team realised the strength of their wings and played constantly on their opponents' inability to hold them. These tactics were rewarded when Franklin completed one of his runs by beating the goalkeeper and scoring (1—2).

Further raids were made on the circle, but without result. The backs were steady and did not give our forwards the freedom they required, so that the game ended in a win for the Police College by two goals to one.

Team.—J. H. Smart; T. C. Thorne, J. S. Astbury; E. J. F. Hinde, A. C. Greene, C. F. Wright; J. B. Franklin (Capt.), G. C. Bough, E. B. Rowe, B. M. Cox, C. H. Phillips.

Guy's v. Northampton

THE Club continued their successful beginning to the season by beating Northampton by 4 goals to 1 on Saturday, October 24th, at Northampton.

Play throughout the game was fast. Northampton started by attacking strongly, and throughout the first half they were the better side, so that our defence was well tested. But it stood the strain well, and a quarter of an hour passed before Northampton scored with a difficult shot by their centre-forward, which Needham only just failed to save (0—1).

Guy's then accustomed themselves to the pace, and thereafter the game was more even. The forwards were getting moving well, but their efforts were spoilt by a number of penalties for "off-side." Shortly before half-time, however, a foul on the edge of the circle gave us a free hit, from which Martin scored with a good first-time shot, thus making the score 1—1 at half-time.

After the interval Guy's started to take matters into their own hands, and they definitely had the better of the game. The bite of the Northampton attack became less keen in the face of accurate tackling by the backs, and our own forwards were playing well. Both wings ran strongly and the circle was often being pressed, so that Martin was able to score three more goals, a lesson in good shooting and following up. The most encouraging features of the game were the determination with which the whole side kept up a pace which, in former years, would not have been thought possible, and the fact that Martin again scored all four of the goals.

Result.—Guy's, 4; Northampton, 1.

Team.—E. J. Needham; J. S. Astbury, T. C. Thorne; E. Smith, A. C. Greene, H. A. Buck; E. J. F. Hinde, B. M. Cox, E. J. Martin, G. C. Bough, J. B. Franklin (Capt.).

Results.—Played, 8; won, 6; drawn, 0; lost, 2; goals for, 27; goals against, 15.

Fencing

Guy's v. Royal Marines

ON October 10th the First team opened its season with a home match against the Marines. After two "A" team matches the week before, a strong team was put out, and our visitors were defeated by 15 assaults to 12.

The foil resulted in a narrow win for our opponents, and Marston, a junior member of the team, fought very well to win two of the four bouts gained by Guy's in this weapon. In sabre also our opponents proved just superior. Our victory of 7—2 in the duelling, however, was sufficient almost to put the result into our hands, although there was still one weapon to be decided.

Lane-Roberts, a comparative newcomer to the team, is particularly to be congratulated on winning all his epée bouts, as well as one bout in sabre.

We wish to thank Capt. Pinkerton for his expert assistance in presiding.

Scores.—Foil—Parfitt, 2; Marston, 2; Kemp-Roberts, 0. Epée—Parfitt, 3; Brown, 1; Lane-Roberts, 3. Sabre—Denton, 1; Lane-Roberts, 1; Parfitt, 2.

The Pavy Gymnasium

THE ANNUAL GENERAL MEETING

THIS was held on Thursday, October 8th. The President, Dr. A. H. Douthwaite, was in the Chair. The Hon. Treasurer, Mr. F. N. Doubleday, and sixteen members were present.

The Minutes having been read and confirmed, the secretaries of the various branches were called upon to give their reports on the last season.

Mr. Fletcher, on behalf of the Boxing Club, said that the Club had had a more satisfactory season than it had enjoyed for some time past. Its membership was increasing. It had come within two points of winning the Inter-Hospitals Competition. It still, however, was in need of new members.

Mr. Parfitt, on behalf of the Fencing Club, said that the past season had been satisfactory. The membership was sufficiently large to keep two instructors busy on two days each week. A certain amount of trouble had been experienced in raising teams for matches on some occasions owing to several members having been called upon to represent London University, United Hospitals and other teams. This, he thought, was a sign that the standard of fencing was being maintained. And it was borne out by the fact that the Inter-Hospitals Cup was won by a comfortable margin.

There being no Gymnastic representative present, no report was forthcoming.

The Treasurer, Mr. F. N. Doubleday, was then called upon to read his report. He presented a balance sheet of the year's working, which had been checked by the Hospital accountants, and showed an excess of income over expenditure of £5 9s. 10d.

The meeting then proceeded to elect or re-elect the following officers:—

President.—Dr. A. H. Douthwaite.

Hon. Treasurer.—Mr. F. N. Doubleday.

Vice-Presidents.—All re-elected unanimously.

The following were then elected :—

Captain of Pavy Gymnasium.—Mr. R. F. Parfitt.

Gymnasium Committee.—

1. Mr. C. Halamandres.
2. Mr. R. Hudson-Evans.
3. Left open.

Secretaries.—

Boxing Club ..... Mr. A. S. Lee.
Fencing Club ..... Mr. P. H. Denton.
Gymnastic Club ..... Left open.

Fencing Representative to London University Fencing Club.—Mr. R. F. Parfitt.

The meeting was then opened to any other business. Mr. Fletcher raised the question of the finances of the Boxing Club. He said that the activities of the Club were being held up by the fact that there was a complete lack of boxing gloves, whereupon Mr. Doubleday extremely generously presented the Club with four sets. Another important item was a ring. At present the Club had to fight all its matches away, which made the question of return matches awkward. It was decided to apply to the Clubs' Union for a grant towards this under the heading of "capital expenditure."

The Treasurer proposed that the organisation of a display by all the branches of the Pavy Gymnasium be considered to raise funds for the various apparatus required.

Mr. Parfitt said that the Jiu-Jitsu Club had now been in existence for a year. An extremely efficient instructor had been obtained whose fees had been paid by the members themselves. The equipment was complete except for a canvas sheet to cover the mats. He stated that, upon making inquiries, he had been unable to find anyone who had seen any organised gymnastics being carried on during the last year or so, and, furthermore, since the Gymnastic Club had not sent a representative to the last two annual general meetings, he proposed replacing this Club by the Jiu-Jitsu Club. This was seconded by C. M. Debenham and carried by sixteen votes to one.

Various suggestions were then made concerning lockers, fencing apparatus, and rubbish in the Gym., which have since been dealt with.

There being no further business, the meeting closed with a hearty vote of thanks to the Chairman and Treasurer.

Hospital Information, etc.

Notice

THE ALFRED FRIPP MEMORIAL FELLOWSHIP IN CHILD PSYCHOLOGY

Applications are invited for the above Fellowship, which is of the value of £300 per annum, and is tenable for a period of two years.

The Fellowship has been established with the object of promoting the advancement of knowledge and research in Psychology, more particularly through the study of children in health and/or disease. Each candidate must submit with his, or her, application a definite scheme of advanced study or research work to be carried out during the tenure of the Fellowship, together with particulars of his, or her, previous career. The investigations undertaken by the Fellow shall be carried out in the Children's Department of Guy's Hospital.

Men and women are eligible for the Fellowship. Candidates must be unmarried, of not more than thirty years of age, and must possess a registrable qualification to practise medicine.

Canvassing will be regarded as a disqualification.

Further particulars as to the regulations governing the Fellowship may be obtained from the Dean, Guy's Hospital Medical School, S.E.1, with whom applications (ten copies), together with the names of three referees, should be lodged not later than November 21st, 1936.

Pass List

CONJOINT BOARD.

October, 1936.

FINAL EXAMINATION.

Pathology.

L. B. Blomfield
*W. J. Gardner
R. C. Jackson
C. L. Kimelburg
J. R. Miles
C. N. Mills
C. S. Pitt
D. G. Price
R. G. Ticehurst
W. G. Tillman
J. A. F. Tobin
H. Stoll
J. S. F. Watson

Medicine.

*H. M. S. G. Beadnell
*E. Gill-Carey
*W. J. Gardner
*E. Gillett
*L. G. Lyle
*R. C. Nevill
*A. J. Smith
A. L. Young

Surgery.

B. Bell
E. R. Bowes
*N. Crosby
P. M. Davies
*W. F. Dunham
C. H. Edwards
*H. R. W. Franklin
D. L. V. Fraser
S. Garnjana-Goonchorn
D. Graham-Brown
B. G. Lilwall
A. E. Loden
M. Lubran
A. D. McDonald
H. A. McDonald
N. R. McEvoy
A. D. Milne
W. B. Parker
D. G. Price
A. C. Ricks
A. A. Shein
F. D. Truax
S. I. Williams
M. R. Woods

Midwifery.

E. W. O. Adkins
R. O. Barber
V. H. Bowles
A. G. Dabbs
S. S. Davidson
R. C. Jackson
G. M. Johnson
O. P. Llewellyn
W. A. Lombard
C. N. Miles
J. R. Miles
A. L. Myburgh
D. S. Theron
R. G. Ticehurst

* Have now completed the examination.

SOCIETY OF APOTHECARIES OF LONDON.

FINAL EXAMINATION.

October, 1936.

Medicine.

F. J. H. de Marigny.

Forensic Medicine.

F. J. H. de Marigny.

Midwifery.

W. D. Brinton
K. G. Pascall
R. A. Stenhouse
R. H. S. Thompson

ROYAL COLLEGE OF SURGEONS.

L.D.S.

September, 1936.

FIRST PROFESSIONAL EXAMINATION.

PART I.

Dental Mechanics and Dental Metallurgy.

W. F. Athey
O. B. Balean
C. H. Blockley
E. K. Breakspear
W. F. A. Butcher
E. P. Cutler
G. E. Clarke
J. C. Coe
J. A. Dossor
L. G. W. Dewey
J. H. Flitcroft
K. P. Liddelow
D. J. Lyon
M. Malleson
P. S. Marshall
A. Middleton
R. H. F. Pearce
A. M. Platt
T. N. Praat
D. A. Priestley
A. J. Rogers
J. A. R. Smit
A. Southwell
R. S. Stevens
J. Symmons
J. H. Thomson
H. Walker-Smith
L. J. Wallace
E. R. J. Walmsley
J. B. Wilkes

PART II.

General Anatomy and Physiology.

H. Brock
J. H. Capon
D. W. A. Drew
S. G. McCallin
L. G. Morgan
H. J. Nicholls
W. F. Dunn
A. Forbes
P. E. Jeffery
R. C. Jones
R. A. E. Keeler
A. Kinghorn
P. D. Kolesar
E. J. Martin
R. H. F. Pearce
R. D. Plowman
D. A. Priestley
J. A. R. Smit
F. N. Stares
G. M. A. M. Whittall
H. A. Woodward

PART III.

Anatomy and Physiology.

I. O. Enos
R. Howgate
G. G. G. Rees
E. W. Sherman
G. M. Turner

Papers by Guy's Men

E. T. Conybeare. Bacterial hypersensitivity. *Jour. Clin. Res.*, 1936, xxii, 125.

E. P. Poulton. Left-sided heart failure with pulmonary œdema treated with the "Pulmonary Plus Pressure Machine" (with diagram). Lancet, 1936, ii, 981.

R. R. Trail. The early diagnosis and prognosis of pulmonary tuberculosis. *General Practice*, 1936, xii, 118.

J. B. Blaikley. Two cases of angular pregnancy. *Proc. Roy. Soc. Med.*, 1936, xxix, 1648 (Sect. Obst. and Gynæcol.).

G. B. Dowling. (1) Congenital ectodermal defect, hyperkeratosis of palms; Atrophy of nails and adjoining skin over dorsum of terminal phalanges; Microdontism; Cicatrice alopecia. (2) Congenital developmental malformation. *Ibid.*, 1633 (Sect. Dermat.).

Louis Forman. (1) Sarcoid; (2) Parapsoriasis varioliforms. *Ibid.*, 1635 (Sect. Dermat.).

F. N. Doubleday. Third molar behind the orbit. *Ibid.*, 1541 (Sect. Odontol.).

R. Holland. Scurvy with oral and general manifestations. *Ibid.*, 1542.

George T. Hankey. Complete caries of erupted permanent dentition in a boy aged 13 years; agenesia of the enamel. *Ibid.*, 1542.

Appointment

A. C. Taylor, appointed Deputy Police Surgeon to the Southern Division, Portsmouth.

Changes of Address

L. F. Beccle, 81, Main Road, Gidea Park, Essex.

Birth

ELVEN.—On 19th October, 1936, at Clare Lodge, Staines, to Phyllis (née Cutting), wife of Richard T. Elven, M.B., B.S.—a daughter.

EDS. { M.A.P. / A.G.W.H.

GUY'S HOSPITAL GAZETTE

A Journal of Medicine, Surgery, Dentistry and Hospital News.

PUBLISHED FORTNIGHTLY.

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PASSIM

THE Guy's Hospital Ladies' Association, under the chairmanship of the Countess of Cottenham, are arranging a Dinner Ball in aid of the funds of the Hospital, at the Grosvenor House, Park Lane, on Thursday, December 17th. There will be a reception at half-past eight for dinner at nine, and this will be followed by dancing to Jack Jackson and his band until two o'clock.

The tickets, which are to be sold for two guineas each, include a champagne dinner, running buffet, and valuable prizes. They may be obtained from the Chairman and Committee of the Ball, Grosvenor House, and from the Organiser, Margaret Maclean, 7, Park Lane, W.1. It is hoped that a considerable fillip may be given to the Appeal funds by this venture.

WE have heard it said recently that "surgery as a sport is a purely British conception, and its home is the cottage hospital," but, like the less lethal game of football, apparently this has spread rapidly Eastwards, and we read lately of the following encounter played with typical Oriental enthusiasm as far away as Tokyo.

According to our contemporary, Dr. Hisao Takayama, a physician, and Mr. Hikota Maruoka, a surgeon, with a spirit of co-operation not often seen in Europe, were operating on a woman suffering from cancer in the Kyushu Imperial University, where they were both members of the staff, when five of their colleagues rushed into the theatre, removed Mr. Maruoka, and, covering him with an operating gown, beat him severely. Then, borrowing still from Western habits, they cracked the unfortunate man smartly over the head with a beer bottle. The brand we do not know, but understand that the result was similar to the several we have seen.

Meanwhile Dr. Takayama, though doubtless mindful of his colleague's misfortune, continued the operation as best as he could, but not for long. His aggressive colleagues having dealt successfully with the luckless Maruoka, returned to the theatre and dragged him also out to be beaten in a similar manner.

Such conduct seemed to us to be too outrageous to be true, and we felt that it was only Hollywood overdoing it again, and these must be merely supermen in white; but no, it all took place exactly as we have stated, and, on reading further, we learned this explanation.

Apparently there had been a change in the presidency of the medical college of the university, and a certain amount of unrest amongst the staff had led to Dr. Takayama being accused of undertaking to perform an operation out of his turn (whatever that may mean) and of usurping the place of another physician, so this was his colleagues' method of revenge.

Our sympathies are entirely with the unfortunate patient, and we feel that our readers will be glad to learn that another surgeon stepped in and finished the operation, and so, in spite of these somewhat sinister happenings, she survived what must be the most remarkable operation ever seen outside the cinema.

We also feel thankful for that harmony existing amongst the staff of this Hospital that makes it impossible for such a tragedy to happen here, and find it difficult enough to imagine the senior physician operating with the senior surgeon, let alone the two of them being dragged from their labours by a band of infuriated subordinates to become the victims of a foul assault. Such treatment might, we feel, be enough to ruffle the calm of any man, and perhaps even a senior surgeon.

ELSEWHERE in this number we publish Mr. A. R. Thompson's farewell lecture on the Investi-

gation of a Urinary Case, which is a sequel to the one which we published under the same title earlier in the year.

No one will have forgotten Mr. Thompson and the refreshing frankness of his teaching, and it is with the greatest of pleasure that we welcome him back to our columns.

LT.-COL. HUGH STOTT, a famous old Guy's man, Principal of King George's Medical College, Lucknow, and Professor of Pathology, has kindly sent to us an account of the forced landing of the *Horsa* in the Arabian desert on August 29th, in which he was involved. We must make acknowledgment to the *Indian Medical Gazette*, in which the article has already appeared, and congratulate the author on his very fortunate survival.

ON Thursday, November 12th, the Physical Society held its third meeting of the session and listened to an interesting discourse on the subject of Homicide from Dr. A. D. Cowburn, H.M. Coroner for South London. Many of us have met Dr. Cowburn at inquests connected with the Hospital, and, whilst admiring the smooth efficiency of his court and the ease with which he sorted out the sordid mass of evidence before him, we have often wished to meet him in less formal circumstances, and to hear more of the multitude of interesting cases that have passed through his hands.

Crippen was undoubtedly clever, and Jack the Ripper must have known a thing or three, but we doubt if many have known more about the subject of homicide than Dr. Cowburn, and we ourselves feel that we have acquired information which may be more than useful.

The Physical Society are to be congratulated on a very successful evening, and to Dr. Cowburn for whose tactful concealment of our forensic ignorance we have long been thankful, we would extend our gratitude for the time and trouble he has taken in giving us this address.

WE eschew civic occasions as a rule, but on Sunday morning the sound of martial music, as " the big brass band played tiddly-om-pom-pom," lured us into the sunshine of the Front Quadrangle. There was much pomp and ceremony, and strangely fitting in our Georgian square were mayors and aldermen in red and black and gold, with cocked hats and top hats, with wigs, gold chains and maces. And a band in red and black and gold, magnificently clad, made echoing music before the Colonnade. Some Territorials were there, more sombre, and a party of the British Legion. The occasion, it transpired, was the aftermath of the British Legion service held yearly on the Sunday after Armistice Day in Southwark Cathedral, and the Legion was being dismissed following inspection by the Mayor. And as the beat of the drums came back to us reflected from the too close walls, we were carried, on the wings which music often lends to memory, back to a day when we last attended a similar service some years ago. It was a winter Sunday in the square of a little Midland town, where again there was colour in the cold sunshine before the old Guildhall, and the troops were drawn up in formation round the square, ourselves amongst them, not a little impressed with the importance of the moment and a certain pageantry of the occasion. At last, after much shuffling and rapping of rifles on the cobble-stones as the lines were martialled, we were in position and stood expectant. From the Guildhall steps the Mayor, more gorgeously arrayed than any lily of the field, stepped forward, and in a husky voice raised to its full carrying power (which was dangerously near a falsetto), he said, " Ladies and Gentlemen—." What was in his mind we never knew, for at that moment the leader of the band, whether through natural zeal or with a knowledge of the mayor's proclivities at the local council and a sense of opportunity, chose to start his minstrels on a deafening rendering of " Colonel Bogey." For a few moments the Mayor went on in desperate competition, and what he lost in sound he made up in gesticulation, but the unequal struggle proved too much, and at the height of one of his gestures he stood silent, like some parochial Discobolus.

We thought, as we watched on Sunday, of the unseemly merriment over that stupendous anti-climax, but nothing happened to mar this present meeting, and as we, with the patients on the balconies, watched the colours and the crowd disperse, it seemed only natural when the sun went in.

AMONG the minor improvements of the Hospital which has caught our eye has been the introduction of a lavatory for visitors on the first floor of the Medical Block. We would with great respect congratulate the authorities on this excellent reform, and any of those who have tried, on a Wednesday or Sunday, to explain to an embarrassed visitor the intricacies of the long trek to the fourth floor, to the Front Surgery or the Surgical X-ray Department, will side with us in a vote of thanks.

THE Residents' Going-Off Dinner was held on Friday, the 13th. Perhaps it was that which caused the absence of members of the Senior

Staff, an absence which fortunately is rare. It is doubtful, however, whether the date can account for the number of breakages.

"Let us once more take a broad view of civilisation," said the man of learning at Balzac's carousal in the "Wild Ass's Skin," and since seeing Dr. Ryle at one once we have never failed to think of that orgy when attending a Residents' Dinner. Not that there is any other point of comparison, except perhaps that occasionally "animal likenesses, so curiously traced by physiologists in human faces, came out in gestures and behaviour"; but there was no "huge *épergne* of gilded bronze" to sustain "pyramids of strawberries, pines, fresh dates, golden grapes, clear-skinned peaches, oranges brought from Setubal by steamer, pomegranates, Chinese fruit," nor were there any of "Poussin's landscapes, copied on Sèvres ware," and "crowned with graceful fringes of moss, green, translucent and fragile as ocean weeds." And if there had been they'd have been broken. But after "the fire and fragrance of the wines had acted like potent philtres and magical fumes, producing a kind of mirage in the brain," why, even the college seemed quite tolerable, and for our part we enjoyed the evening.

AN old Guy's man, lately retired, who has been engaged in much private surgery, together with ophthalmic work, and who was a pupil of Fuchs, of Vienna, very kindly writes to us to say that he can provide opportunity for buying much useful equipment at a reasonable figure. The equipment includes a microscope with 2-inch, 1-inch, sixth and twelfth lenses and sixty pathological slides covering the necessary pathological histology for most examinations, an operating case containing all things necessary for such measures as removal of breasts and herniæ, an eye-test case, and other things. Anyone who is interested in such a proposition may obtain further information by application to the Editors.

A DANCE was held in the Nurses' Home on Monday, November 9th. The fact that this was not held, as has often before been the case, on a Friday or Saturday resulted in a large attendance, and a very good evening was spent, for which many thanks are due to the Matron and the organisers.

Armistice Day, 1936

THE Armistice Day Service was held as usual on November 11th, at the War Memorial Gate, when the following address was delivered by Mr. Eason :—

"We are gathered here to-day to hold in remembrance nearly one million Englishmen who laid down their lives in the Great War in France, in Flanders and in Italy; Egypt, Mesopotamia and Palestine; in the Balkans and on the borders of the Caspian Sea; in the Mediterranean and at sea in nearly every quarter of the earth; and more particularly those Guy's men whose names are inscribed on this Memorial Arch behind me.

"With the lapse of time the Great War has less appeal to the younger generation which is growing up, as they no longer remember it; but to us of the older generation the thought is always in our mind that these men laid down their lives to keep for us the England that was and still is—that is to say a country in which all persons of any race, religion or political creed can live in freedom, with the right to hold and express their own opinions, and where they are still entitled to laugh, not only with themselves and at themselves, but at others. There are very few countries left in Europe where free laughter is still possible, and laughter is one of the healthiest of all human attributes.

"For myself this occasion becomes increasingly poignant, particularly when I think of those whose names are inscribed on this Memorial. I knew them all, whether as friends or students, and I cannot forget that all of them laid down their lives in order that you in your generation might enter on your happy heritage."

The Investigation of a Urinary Case—II

A Clinical Lecture delivered at Guy's Hospital by A. Ralph Thompson, Esq., F.R.C.S.

GENTLEMEN,—After the publication of my last clinical lecture in the *Guy's Hospital Gazette* I received a letter from Dr. Adolfe Abrahams couched in a pleasant way, and I felt much flattered that such an earnest student of medicine had read this lecture. Supported by his kindly feelings for the subject matter, I am prompted to add thereto some notes that I

have collected through the years, especially as it was stated in the *Gazette* that the lecture was to be continued.

I shall begin with some difficulties that are met with in doing a cystoscopy. In certain cases of tuberculous disease of one kidney that has spread downwards to the bladder, this viscus may be so sensitive as not to allow any fluid to enter it except in too small amount to enable the bladder to be examined. In this type of case, which I am glad to say is rare, the surgeon must be content with examination other than that afforded by the cystoscope, and if after the renal function of the total kidney area on both sides is good, and there is pain on one side, with possible swelling on the same side and pus in the urine, he is justified in cutting down upon the painful side and exploring the kidney. In this class of case, uroselectan would be of immense value, as it picks out a healthy kidney, and if there were a good shadow on the other side given by uroselectan, if the affected kidney is found to be tuberculous at the operation, then it can be excised. It is wonderful how the bladder irritability clears up after removal of the kidney, and as much of the ureter as possible as far down as the bladder if need be, and Mr. Jocelyn Swan's operation of an additional ureteric incision may be found most useful.

I am not at all in favour of abdominal nephrectomy, but if ever it is indicated it is in such a case, for it enables the operator so easily to feel for the other kidney, and if it be found to be diseased then only drainage of the worse kidney is indicated. But one kidney only remains affected for a very long time without the other becoming infected. I believe that Mr. Bromley has adopted drainage of the worse of two tuberculous kidneys with good results.

I recollect well a surgeon at the Middlesex Hospital advising ligature of the renal vessels in cases of tuberculous disease of one kidney. Examination of a urinary case may be conducted with great advantage sometimes in the post-mortem room, and if he had only done this he would have noted that Nature in advanced cases of tubercle of the kidney has already ligatured the vessels by forming clot in them.

This point raises a very important issue, and I have no hesitation in saying that the kidneys ought never to be removed after death until the competent examiner has seen them *in situ*. Someone wants a subject for a thesis. Let him go down to the post-mortem room and see the kidneys before they are removed from the body, and let him examine their blood supply, and at the end of 100 such examinations, if he did not have something fresh to say about the blood supply of the kidney, I should be very much surprised, for consider the ascent of the kidney from its original position. Do the renal vessels always occupy the same origin from the aorta and vena cava? I believe that such an examination would throw a flood of light upon most important subjects.

But there are cases in which a tuberculous bladder, though very irritable even under an anæsthetic, may still be examined with the cystoscope. Some years ago now I found that the tannic acid solution as used for application in cases of burns was most sedative to the bladder, and indeed in one case, the only one that I have had of prolonged irritability of the bladder after nephrectomy for tuberculous disease, the patient was very much improved by the instillation of such tannic acid into the bladder. He eventually got much better.

But his case brings out a point which you will do well to bear in mind when examining these cases. You all know athletic exercises affect the nervous system. I recollect well having to reduce a partial dislocation of the hip in a young man playing against Richmond. I am glad to say that I got it back, but the point that I wish you to note is that I could hardly perform any delicate movement in the football state that I was in at the time. Well, this sort of feeling cannot be very good for the central nervous system, and I gather, from having been to see two professional association football matches, that the average footballer may be a man of most unstable nervous condition. This man that I had to deal with for tuberculous kidney was about the most nervous man that I ever met, the most nervous except two strong firemen whom I had to deal with for fractured femurs when I was house surgeon to Sir Charters Symonds, or Mr. Symonds as he was then. These three people agreed in being accustomed to doing very hard work intermittently at high pressure, and I do not doubt that their nervous system was unduly excitable.

Have you ever seen professional footballers kiss one another? Well, I have. I never want to see the sight again, but it does show that such people may be very excited as to their nervous system. Now as I say, this professional footballer, who was a rugby international from Wales, was a most nervous man. In such cases it is no use for us to say that he did not feel pain. He felt it very acutely, and required treatment. Tannic acid locally applied to the bladder did nore good than the morphia which had been given to him to combat the irritability. I lay stress on this point, as you must not think that a man is either neurotic *or* has something definitely the matter with him.

He may be suffering from both conditions. Incidentally I may mention the nervous shop-walker who was sent to me by a distinguished London M.D. with a diagnosis of hysteria. He was constantly passing his water, or, rather, wanting to do so. Can you imagine anything more distressing than a middle-aged man who has got a job being in danger of losing his way of livelihood by constantly having to go from the shop to micturate whilst he ought to be in it attending to the customers. If you can, I cannot. Anyhow, the passage of a sound (recollect, not bougie) cleared up the matter. The crushing of the stone effected a cure, and he was soon back at work with the so-called hysteria completely gone. He is one of the few cases I feel that real good was done by me for a distressing condition. Recollect always that it is not a question in the Front Surgery of drunk *or* dying, but drunk *and* dying.

Another cause of difficulty in examining the bladder with a cystoscope is the smallness of the bladder owing to the pressure of a swelling in the abdomen, such as an ovarian cyst projecting into the pelvis, and preventing expansion of the bladder. For such a condition uroselectan might be most usefully employed for examination of the kidneys. One should always wait till the bleeding has been stopped before doing a cystoscopy when it is expected that the bladder is at fault. I have seen a fatal hæmorrhage set up by performing a cystoscopy whilst a growth is bleeding. And here is another subject for thesis. Why can patients go on bleeding day after day before an operation and then succumb after only perhaps very little bleeding after an operation? If you decide to operate upon a man with bleeding from a growth and you decide to remove the growth, first recollect that there is to be nothing dramatic about the operation. You are to cut down suprapubically, and you must not take your knife within a half-inch of the pubes, for here there is always danger of bleeding from small vessels. You must see the bladder and carefully avoid any vessels in its wall. You must clip the pedicle of the growth and excise it superficial to the clip, and leave the clip in position and include it in the dressings. Then you must plug the bladder. Recollect that six and a half yards of broad cyanide gauze will go into such a bladder, and you should be content with nothing less than this. I find plugging the rectum with as much gauze as one can get in stops hæmorrhage very effectually, and it can always be taken out when it has done its work, say at the end of 12 hours. Only the other day I had a prostate under the care of Dr. Parrott, of Clapham. I also had the advantage of my great friend Mr. Richard Rowlands. I had had the advantage of having examined the rectum with 25 years' experience of prostate, and I had found that the prostate was very nearly enormous. Those of my dressers who are here may recollect that I have a special class of enlarged prostates which are very large, and for some of these I reserve the epithet "enormous." I believe that these enormous prostates are dangerous things to have removed, partly because so much damage is done to the mucosa of the bladder, and partly because there may be an inflammatory element in them. Knowing this, I somewhat surprised Dr. Parrott and Mr. Rowlands when I said that I thought prostatectomy should be done, but gave a rather pessimistic outlook after the operation. That man did not lose a drop of blood at the operation, nor afterwards, because I had Mr. Sutton helping me, and I should like to say that I have had five really good and helpful house surgeons since 1921, when they first came into existence in the Genito-Urinary Department. As I have had thirty-one altogether, this statement gives so many to claim this position. But I have no hesitation in saying here and now that my last house surgeon, Mr. Sutton, is amongst those five. Be this as it may, things were so managed that there was not a drop of blood that escaped at the operation or after it. I plugged the bladder and I plugged the rectum.

Always estimate the size of the prostate; always examine the back, front and sides of the rectum, especially in cases of suspected malignant growths of the prostate. If you have an enormous prostate to deal with, I should advise not being over keen on doing it yourself.

Blood coming from the kidney may obscure the cystoscopic view very much, and pus also if it be in any amount. But you can get over this difficulty by adopting a very simple plan.

Take a catheterising cystoscope and fix tubes on to the holes of entry for the catheters. Connect up one with a large funnel and have the other one draining into a pail on the floor. Empty the bladder and irrigate and then pass the cystoscope with the tubes attached. Pass the irrigating fluid through the one hole, and let it emerge through the other hole. By this means the fluid in the bladder is rendered sufficiently translucent for the bladder wall, and the ureteric orifices to be seen, and the origin of the blood can be rendered visible.

Pus also may be very fluid, and may so rapidly cloud the bladder contents that examination may be quite inadequate. Adopt the same plan, and you will see the flow of pus from the ureter of the affected side or on both sides. You can also inject sulphindigotate of soda and see if the other kidney is acting well. Thus I have seen blood

coming from the ureter of one side and the blue normal urine coming from the other side.

The injection of dye should be done through a vein, if possible. The exact time of the injection should be taken and no anæsthetic should be administered as a rule, as there is some delay with anæsthetics. The dye should be through and seen coming down at the ureteric orifices within five minutes. If it is longer than this there is a failure of renal function. The two ureters may vary in the time that the dye comes down, and then you can say which is the better kidney. Injection through the muscles and administration of an anæsthetic lessen the rate of excretion of the dye.

Now how does fluid come down the ureter? It emerges at the ureteric orifice in sudden spurts every half-minute or so, which are shown to be beginning by contraction of the ureter muscle, which drags the ureteric orifice upwards and outwards, and this having occurred, the fluid comes down very shortly afterwards. If the fluid is clear urine, then it may not actually be seen, but a swirl of fluid may be seen from the fluid of the kidney coming into the fluid in the bladder. You may see the flow, but not the fluid. Pus may be intimately mixed with the urine, and then you can see both flow and fluid. A swirl then is a sign of healthy urine. If the pus be inspissated, then a rather unexpected appearance occurs. You will see a sort of worm cast at the orifice of the ureter, which remains *in situ* long enough for a class of students to see it.

Bladder examination with the cystoscope.—There are various pathological findings to be noted by this method of examination. First, the neck may be long, and you may be some time introducing the cystoscope far enough to enable you to see the base of the bladder. This is associated with cystocele, and prolapse of the bladder and vagina. There is another complication introduced by a prolapse of the bladder. I am perfectly certain in my own mind that prolapse of the bladder may occur without prolapse of the vagina. You may not be able to see the ureteric orifices at all, as they take part in the prolapse.

The posterior part of the base of the bladder is prolapsed, and a fossa is formed behind the urethral orifice, and the ridge on which the ureteric orifices are situated is directed backwards, and these orifices may not be seen at all. A little device may be adopted in order to get over this difficulty. Put more fluid into the bladder, and place one finger in the vagina and push it forwards and upwards. Then the ureteric orifices may come into view. But such cases are difficult ones, and even with great patience the orifices may not be detected.

If they are detected it may be difficult to push a catheter up the ureter, and here a finger in the vagina is most useful by straightening out the ureters as they lie in the pelvis. To find the ureters in such cases it may be advisable to inject some dye and wait for it to come down, and then the ureteric orifices may be seen lying perhaps in an unusual position. Now for the appearance of the bladder wall. The trigone appears of a lighter colour and is smoother than the rest of the bladder. Vessels may be seen coursing along under the mucosa, and fasciculi of the bladder muscles producing interlacing ridges may be seen in the body of the bladder.

Hollows may lie between these bundles of muscle, and some of these hollows may be seen to be almost sacculi or even actual diverticula. Such a diverticulum may often be seen at the top part of the bladder, indicating a urachus. Or small openings may be seen, from which pus may be seen to be escaping, and on passing a catheter into such openings they may appear bigger than might have been suspected. Such cavities are true diverticula. They are most frequently seen at the base near the holes of the ureters. These diverticula may be associated with obstruction to the flow of urine, and are more common, I think, with enlarged prostate than with stricture of the urethra. These diverticula may also be congenital in origin, and be associated with aborted ureters. Recollect also that you may see double exit holes of the ureters. The question of double ureters is an important one, and I wrote a paper dealing with the subject in 1912. They are more common than is usually believed; in fact, so common that it is always worth while looking for them when you are cutting down on a kidney. I recollect one case in which there was a double ureter, and a stone was found in the least obvious one of the two ureters, which was negative to X-rays.

This leads me to make a statement which you will find useful. It is not every stone that is opaque to the X-rays. Even now we come across cases in which no stone is reported as being present, and the patient has passed a stone later. I have known a stone passed two or three years after a negative X-ray, and I have known a stone passed shortly after such examination which revealed, according to the report, that there was no stone.

There is a bus driver on the "43" service who had frequent examinations for stone, but all were negative, but eventually he passed a small stone.

Its possibility was suspected, but it was never seen.

The question of diverticula is extremely important. They may be associated with the

presence of oxalate calculi. Oxalate stones in the bladder are rare. They are very hard and may be multiple, two contraindications to litholapaxy. The presence of a diverticulum may also preclude this operation. For consider the matter.

You crush a hard stone, and the fragments fly, and may enter a diverticulum, and set up by bruising the peritoneum a peritonitis. Before you do a litholapaxy always conduct a preliminary cystoscopy first.

Now let me digress a little in our examination of a urinary case which can never be of any value unless the examiner has some knowledge of his work. It is usual to classify stones as renal, ureteric, vesical, or urethral.

Prostatic stones also occur, but they are of such a curious origin, practically always septic, that they can hardly be considered as urinary calculi. Now I venture to assert that such a classification is wrong. I would say that we are to classify stones as resting or travelling.

The usual classification of stones by means of their position at the time of examination leads inevitably to the wrong conception as to whether the case is one for the physician or the surgeon—not a scientific basis for classification. The patient has a stone. It is for you to examine X-rays, and, recollecting that the usual X-ray photo magnifies the size of the stone, you have to recollect whether or not it is of a possible size that will not preclude it being passed eventually. If you can decide that it is not too large for passage, you will give suitable drugs to assist its passage. Such a stone, if passed along the urinary ways, is a travelling stone. It may be hitched up by a narrowing of the pelvis of the kidney or of the ureter, or it may not be passed further than the bladder; then that is a travelling stone which has come to rest.

If a stone is a resting stone either owing to its size or due to some fault in the passages, then it is a case for the surgeon. Is this stone resting or travelling? is the question that you are to put to yourself when seeing such a case with the help of X-rays.

I think, too, that there is another word of caution to give on this occasion. We know that, thanks to Dr. Osman, very large doses of alkalies may be given for cases of infected urine. Well, in cases of stone recollect that such drugs may lead to the size of the stone being increased by the consequent chemical deposit in the urine following upon the administration of drugs that give rise to chemical change in the urine. Sir Benjamin Brodie suggested the exhibition of magnesia rather than the more active alkaline treatment. I agree with him.

As to the size of stones that will pass, taking into account their magnification on an X-ray plate, this is indicated in a paper of mine published in the *Reports* of 1929, where you will find plates of stones with the actual size recorded. Curiously enough, shape is of less significance than size, provided that the latter is small. Spiky stones may be passed. If, however, one side of the stone appears to be flattened, as it is sometimes, you may be sure that the flattening is associated with adhesion to the corresponding surface of the ureter. Such a stone may be so adherent that it cannot be passed, though, according to its size, you might expect that it should be passed. Stones may be seen at the orifice of either ureter, and in the two cases that I have seen their extraction was easy, and they were both passed very shortly after. You may recollect that I am rather keen on a point that is not generally recognised, namely, that stones may be passed more easily along the left ureter than along the right. This raises a further consideration as regards the question of possible passage.

When a question of stone in the bladder arises a cystoscopy is needed to settle the constitution of the stone and its shape. Foreign bodies are to be excluded, such cases being more frequent in women than in men. They have been introduced from without. In one case a nurse had introduced the bottom two-thirds of a thermometer case, and it lay transversely across the bladder. Now in this case an interesting question arose of a medico-legal nature. I had not obtained the consent of the patient to an operation, and there was the thermometer case lying across the bladder, with its sharp end in contact with the left side of the bladder wall.

Was I to go on with an operation that might be serious in its consequences? I thought that the matter was urgent, as one was not to know that the putting back of the patient to bed might not lead to perforation of the bladder wall, and possible injury to important blood vessels. Moreover, I thought that the patient was hardly likely to sing a song about such a matter in public, and, after all, I am not sure that a drowning woman would much object to a man technically assaulting her by putting his arm round her waist in trying to save her, so I carried on and removed the foreign body. It was a very fortunate thing that I did so, for already enough damage had been done to the main iliac vessels, as shown by thrombosis occurring on the side that the foreign body had lain against the bladder wall. Another case of a foreign body that I have had was a case that had been examined by Mr. Lloyd, surely the pleasantest colleague that a man like myself might have. He thought that the bodies, for there were two, were

rather curious in shape and position. I saw the case with the cystoscope, and thought that they were stones from some fruit tree. I removed them through the urethra with my finger. The patient did not suffer from incontinence after the operation, and did well. I placed the nut in a pot containing earth, and one of them grew a seedling tree. But alas, I was too careful about it, and the tree mouldered and came to nothing. It may have been an almond tree. I ought to have considered that a tree that had been born in the bladder was only too likely to want the fresh air that it should have had, but I had not met Mr. Evans then and hardly knew him. I wish that our acquaintance had started before this tree mouldered.

Other foreign bodies include a case of a metal collar stud which formed the nucleus of a stone in the bladder, and the presence of a vagino-vesical fistula seemed to show how the metal stud had got into the bladder. I have had one case of a stone forming round a catgut ligature in the bladder. I have had two cases in which catheters or rather parts of instruments of a soft nature had formed the nucleus of a stone. One was in an old man, who had a stone surrounding a small bougie. The other case was under the care of that incomparable teacher of surgery, Mr. L. A. Dunn, for strangulated hernia. He was successfully operated upon, but came to my Out-Patients later with a stone in his bladder. I removed this stone, and found the bladder end of a coudé catheter in the middle of the stone. He then told me that when convalescing from his previous operation he had suffered from retention, and had had a catheter passed. He had also noted that when the instrument was withdrawn not all of it appeared to have come away. The moral of this case is that one should always be sure that an instrument that has been passed into the bladder should be removed intact. Carefully observe your instrument after you have removed it from the bladder.

As I have indicated, cystoscopic examination of the bladder will demonstrate diverticula, but before I go on to their consideration I may point out that stones which appear to occupy curious positions should receive careful attention from you. Thus a stone which was large was hanging on the right side of the bladder a long way above the usual X-ray position. Prostatic stones in X-rays lie behind the body of the pubes, which very accurately marks out the surface anatomy of the prostate gland. Bladder stones which lie in the usual position in the bladder are at least half an inch above the brim of the pelvis. This stone was higher than the usual position, which is occupied by a stone in the bladder and was on the right side of the bladder. When I cut down it was found that the stone was very adherent to the bladder wall owing to the fact that it had several blunt prominences upon it which fitted tightly and accurately into corresponding sacculi on the bladder wall, and it was very difficult to remove.

All these stones are illustrated in the article to which I have already made reference.

Now let us go on to the consideration of diverticula of the bladder. I recollect well two cases in rapid succession of autopsies performed by the late Dr. Bryant, who combined a football career with astounding knowledge of his more important work. They were cases of peritonitis following upon operations for strangulated hernias. In both cases it was found that a diverticulum of the bladder had come down in connection with the hernia and had been mistaken for a gland, and the pedicle of the supposed gland had been divided and urine had leaked through the divided bladder, and set up peritonitis. It is recorded that Sir Arbuthnot Lane, who was watching an operation being done by Mr. Graham Simpson for strangulated hernia, suddenly bent forward and said in his quietest voice, " Yes, Mr. Simpson, that is the bladder that you have got hold of." Mr. Simpson took adequate steps to see that it was not cut.

Whilst I am on the subject of bladders I should like to draw your attention to a very painful symptom of malignant prostate. This is sciatica. Whenever a patient has sciatica and comes under your care, always examine the rectum for an enlarged prostate, especially for a malignant one.

Such an examination of the rectum must go backwards, and an examination of the sides and posterior parts of the rectum must be made. I believe that in some cases of malignant disease the symptom of sciatica may be present before the growth has got outside of the prostate; in such cases it may be that advancing sclerosis of tissue outside the prostate in connection with malignant disease such as we find, for example, in connection with diseases of the breast, may lead to production of pressure upon the sacral plexus, or its nerves, and thus lead to the sciatica. Be this as it may, sciatica should always make us think of the possibility of an enlarged prostate of a cancerous nature. There are two items that I wish to bring to your notice now. First, if you suspect a prostate to be malignant, what advice are you to give to the patient? The disease may have advanced too far for any operation but a mutilating one to be done. Well, remember that malignant prostate, *qua* cancer, is like cancer of the penis, not very malignant, and thus diathermy or

coagulation methods may be employed through the urethra by a transurethral operation.

But I have a case which illustrates well another method. I have a case of a man who is attending Out-Patients and is very happy and well. He has a very hard and nodular prostate, and it is clearly malignant, but I did supra-pubic cystotomy over two years ago now, and he shows no sign of trouble with the prostate, though he is wearing a tube and receiver over the permanent fistula that has been made. The man is over 70 years old, and is a pensioner, but he could, if it were necessary, do what work he might be called upon to do. It is the same with cancer of the penis. Such cancers are, *qua* cancer, not very malignant, and much may be done for them in the way of radium, and the results of amputation are remarkably good. And this remark seems to apply to the secondary glands that are found at times in the groin. Glands in the groin occur secondarily to the penis, but glands in the abdomen occur even high up by the side of the aorta in connection with malignant disease of the testicle. Nevertheless, I would rather perform partial amputation of the penis for cancer than use any amount of radium, though the latter may cure, it does not leave a very prideful penis behind, and the penis that is left after amputation of part of it has been followed in two cases that I know of by procreation, and the birth of a baby. A neat organ, even though partial, is better than a deformed organ, tortuous and twisted.

Now sometimes a stone in the bladder is associated with an enlarged prostate. When you find an enlarged prostate, and the patient has pain with no sign of a distended bladder, you may be sure that there is a stone present in the bladder. Have the patient X-rayed to see if there be not a stone, and sound him, but use the special sound designed by Buckstone Brown for the purpose of getting behind the prostate and exploring the *bas fond* of the bladder.

Has a stone ever been broken by the force of the bladder muscle? The possibility of its occurrence has been denied by some people, but when one can produce a specimen of such a condition being present, all authorities must go by the board who assert to the contrary. Here is a specimen of such a stone broken *in situ*.

Are there any pathognomonic signs in the bladder of disease to be seen with the cystoscope? Growth of a papillomatous nature may be seen, and malignant disease may be diagnosed, though with regard to the latter it is well to remember first that the cystoscope may exaggerate the gravity of a growth, and may, indeed, lead you to believe that you may have a very nasty papilloma to deal with, or even a cancer. Where you see this kind of condition recollect that there may be, and often is, an accompanying inflammation, and do not be in too great a hurry to do anything in the way of diathermy or suprapubic cystotomy until the inflammation to a great extent has been brought under control. But do not let the patient lie idle, and do not be idle yourself in the matter.

The great objection that I have to heroic operations on the bladder such as cystectomy and ureteric transplantation for growth is that one may be so disappointed to find that ascending inflammation has been set up before any operation of such a nature is undertaken. When inflammation has been found associated with growth, then get busy at once and give urinary antiseptics, and if there be no bleeding, carefully introduce a catheter and wash out with that solution which you would like to have used by a careful ophthalmic surgeon on your own eye, namely, silver nitrate solution, 4 grains to the ounce—4 grains in 437.5 grains, the latter being the number of grains in an ounce. The solution then is rather weaker than a 1 per cent. solution.

Always in bladder surgery use distilled water before the actual irrigation with silver nitrate, and use the same immediately after. Another solution that you may use for the bladder is 1 in 2,000 oxycyanide, which, like mercuric chloride, may be irritating to the bladder, and this solution is such a limpid one that it is most useful for bladder cystoscopy. Gomenol oil is also most useful for disinfecting the bladder, and I had much pleasure the other day in receiving a traveller with gomenol to recommend, but as I had brought it into use at Guy's in 1910, I told the traveller he was slightly late for me. Its method of use is a little complicated. One part of gomenol oil in twenty of sterilised olive oil is instilled into the bladder after the usual irrigation, say about 2 ounces, and left there.

The gomenol oil being lighter than the urine ascends to the upper regions of the bladder, and remains as a layer of fluid at the top of the urine. The patient is told to watch the passage of the urine when he is passing it, and to stop the act when he notes oil drops in the chamber.

As the urine is being passed the oil is descending and cleaning every part of the bladder with which it comes in contact, and the bladder is disinfected.

Urotropin should hardly ever be given in larger doses than six grains every four hours, and may be usefully combined with eight grains of boric acid.

Papain is a useful adjunct, as many of these bladder cases suffer from indigestion, and papain

is much more generally useful than pepsin in such cases.

Salol by many is supposed to be of no value, but as a matter of clinical fact I am inclined to think that it may do good, certainly as an intestinal disinfectant, and perhaps also as a urinary disinfectant. It should be given in doses of fifteen to twenty grains.

Strychnine is most useful in causing the bladder completely to contract, and thus to get rid of debris of an infective nature. In certain cases it may do so much in this way of contraction of the bladder muscle that the bladder may be rendered sterile by this very mechanism.

Alkalies are all very well in their way, and doubtless are very useful, but it must be recollected that a urine in cases of growth may deposit crystals and form stones or a stony deposit, and this is not a desirable complication.

The main distinction between simple and malignant growth is the presence of a pedicle in the former, and the consequent production of a shadow under the growth. The sometimes beautiful appearance of a bladder papilloma is never shared by a cancerous growth which also is sessile, and in some cases silvery white in appearance. I have already drawn attention to the usual position of bladder papilloma, namely above and external to the ureteric orifice. I once made a very pretty experiment in connection with this. Immediately after death I introduced white plaster into the bladder, and whilst it was slowly setting (and Mr. Clark, in the Dental Department, gave me much help in the choice of plaster and the proper mixing of it) I cut down on the left ureter and injected through it some plaster deeply coloured with blue. I then waited for the plaster to set completely, and after I had removed the plaster cast from the bladder I cut sections of the cast and found the blue forming a distinct linear area which ran upwards and outwards. Anyone who has seen fluid escaping from the ureteric orifice will know that, in the same way it squirts upwards and outwards and impinges just above and outside the orifice.

It is curious that papillomata should be situated in the bladder most commonly just in this position: another subject for a thesis.

It is not without significance that some cases of such papillomata are associated with the tendency to form stones, and it may well be that some alteration in the crystalline content of the urine may be associated with the formation of a growth.

Inflammation other than that which is associated with bacilluria may be most misleading, and I recollect well how I was led astray by a case in the medical wards where there was a silvery white centre to the supposed growth and a definite raised edge such as one sees with cancers occurring on a surface elsewhere in the body. When I came to cut down and saw inside the bladder, it was found that the whole appearance was due to inspissated pus. Doubtless this was the correct treatment, but done on a false assumption.

The usual case of bacilluria gives very definite signs with the aid of the cystoscope. Instead of the bladder giving its usual orange tawny reflex with the blood-vessels coursing over the surface of the bladder just under the mucosa, the whole surface is pale, and the blood-vessels cannot be seen or only faintly. The mucosa has the appearance of a carpet pile, and this indicates its thickening.

Another thing you may see with a cystoscope, or rather may assume from its introduction, is the length of the neck of the bladder in women who are afflicted with prolapse of the vagina and the bladder, or, as I believe, with prolapse of the bladder alone, and you will note the very greatly increased distance that you have to pass the cystoscope before the bladder is entered, as evidenced by seeing the reflex of the bladder wall. I have already drawn your attention to the backward direction of the ureteric orifices in this condition.

Now in connection with the examination of a urinary case, there is no doubt that the passage of a cystoscope in itself may do good. Whilst I was in the Army during the war I learnt a few things. How to read a barometer and study the weather, a form of madness that has remained with me; how to play a certain crude kind of billiards, and I found that to be able to wield a cue was of no help in passing an instrument along the urethra, and this is—I mean the billiards—a form of madness that I have got over; and the third thing was—I say " was " because there was no need to continue the experiments—a study of the heating effects of a cystoscope lamp upon surrounding fluid. It is practically nil, and therefore the effect of the heat of the lamp of a cystoscope is probably not at the bottom of some of these cases of improvement after the performance of a cystoscopy. But I do think that stricture does occur in the female urethra, and that this, by being dilated with the passage of the cystoscope, may lead to much relief of suffering in women. In men I cannot imagine a worse instrument for passing a stricture than the cystoscope, except it be the true sound—not, of course, the commonly named sound, which really, as all my dressers know, is a bougie. Well,

resilient strictures occasionally occur, and I may say that resilient stricture is a stricture which is capable of being very easily passed by a bougie, but which does not allow urine to pass. Such a condition occurring in an elderly man might lead an ignoramus to assume that there was an enlarged prostate, but do not be misled.

As a rule the prostate which gives rise to retention is one that can be very easily felt, and if no prostate is to be felt, think of the possibility of a resilient stricture. I say think of it; above all, mention it at an examination. I have only come across at most three cases in twenty-six years.

Multiple strictures.—These are very rare.

Heat Exhaustion and Dehydration in the Arabian Desert

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THE forced landing of the airplane *Horsa* in the Arabian Desert at 4 a.m. on Saturday, 29th August, presented an occasion, unwelcome though it was, to observe the effects of the heat exhaustion followed by great body desiccation after a few hours' exposure to dry desert heat. A few notes may be of some general professional interest.

I.—ON THE ATMOSPHERIC CONDITIONS

One officer was interested in this point, and watched the available thermometers. In the shade of the wings where the passengers lay he estimated that the air temperature was about 125° or 130° from soon after sunrise to sunset, which was, of course, much above that of the human body. The air humidity was extremely low, since the air was scorched dry in its passage over the burning desert sands, which surrounded the airplane on all sides and continued without water, trees, shade or vegetation for some fifty miles. A continuous fair breeze, though hot and dry, made conditions seem less unpleasant.

II.—ON THE RESULTING HEAT EXHAUSTION

The first experience of great body heat stimulated endeavours to anticipate and to minimise the condition which was likely to follow. The symptoms were slight restlessness, considerable giddiness and faintness, inability to walk beyond a few steps or even to stand, and rapid shallow breathing. Such symptoms were followed by signs of severe cardiac collapse, evidenced by cold skin, a feeble pulse and cyanosis. The clammy sweat one would have expected with cardiac collapse was not apparent, since it at once evaporated and increased the skin coldness. The available brandy, spiritus ætheris nitrosi, digitalis and Eau de Cologne for such cases proved invaluable. The early appearance of such cardiac collapse symptoms amongst a group of fit officers returning from leave was remarkable. The ship's captain and navigation officer were the first two cases. They developed symptoms about noon after some six hours' exposure, which included the early morning hours when the heat was less trying.

III.—ON THE INFLUENCE OF MENTAL STRAIN

In them, however, the considerable mental strain to which they had been exposed for two hours before landing provided a special predisposing factor. During this period the Bahrein Aerodrome could not be located on account of defective lighting and the enveloping haze, whilst wrong air bearings directed the airplane further into the desert instead of into its airport. Petrol was almost exhausted, but a forced landing in unknown country before the first light of the breaking dawn was full of the gravest danger. In such circumstances the responsibility for passengers, mail and plane was no light one.

IV.—ON THE INFLUENCE OF PHYSICAL EXERTION

The least movement added to the body heat which the vital processes themselves produced. We soon found that exertion of any degree was followed by increasing weakness, and that a few yards of staggering walk was of necessity followed by a period of breathless immobility. All, therefore, soon diminished physical exertion to an absolute minimum. And yet it was remarkable how eleven out of the thirteen managed to cross one mile of desert at 2 in the afternoon to the rescuing R.A.F. bomber, though it was true this was accomplished after copious fluid and concentrated foods.

It appeared, indeed, doubtful whether all could cross that mile, but the attainment of safety at the end was the prize that won through. Some of us marched with eyes fixed on the ground a few yards ahead. To look at the plane itself made the distance seem impossible of attainment. I personally made for a selected mark about twenty yards ahead and, encouraged by the successful accomplishment of that, chose successive such landmarks till the plane was reached. Perhaps I was lucky in being the possessor of an umbrella, which was especially fortunate as two of us had no topees. Some of us at bad periods were helped by gallant men of the Royal Air Force. Three-quarters of an hour was spent on that mile in absolute silence, every energy being concentrated on the goal to be attained.

V.—ON THE RESULTING BODY DEHYDRATION

The dry scorching breeze, like a blast from a furnace, sucked fluid through the sweat glands which immediately evaporated, so that no visible sweat was produced. This evaporation, no doubt, caused some slight cooling of the skin surface, which made us choose to lie where the breeze was. But such temporary cooling was produced only at the vital expense of the invisible constant drain of body fluids through the skin to the atmosphere. I recall considering whether it would be of greater advantage to lie where there was no breeze and conserve one's body fluids, or to hazard the future for the slight relief the breeze gave. And the present won!

The available fluids, available in the ration of three-quarters of a small tea-cup thrice daily, was a drop in the ocean in an attempt to replace any material part of the fluid lost through the skin. The clinical result was not unlike that of a cholera attack, though the fluid was not lost through the same channel. The skin became "bone" dry and lost elasticity. The eyes sank into their sockets and became encased with heavy dark rims. The cheeks hollowed, the pulse became feeble, and its tension fell, due to diminished volume from dehydration. The urinary secretion failed, so that a few ounces only were voided in the twenty-four hours, and that of the deepest colour, most concentrated and highly acid, so that its passage was accompanied with a slight sting. Blood changes, resulting from the rapid loss of blood fluid, must have corresponded to those in cholera. The total red and white cells must have relatively risen, and the blood become thick and venous ("tarry"). Cyanosis certainly developed. The highly acid urine indicated a reduced blood alkalinity, as in cholera. The blood urea must have considerably risen. The urea retention was not due to failure of the excretory kidney function from organic disease, as in the uræmia of advanced Bright's disease, but to retention due to desiccation of the body, by an acute drain of the body fluids from it, with insufficient fluids by the mouth to provide for a urinary secretion, as in cholera and at times in diabetic dehydration. It will be recalled that an easy method of bedside differentiation of these two types of retention is by estimating the concentration of urinary urea, which is high in dehydration when the kidney is healthy and could concentrate well, and low in Bright's uræmia, when the kidney is almost entirely destroyed. No doubt toxic metabolic products and acids retained by the failure of the urinary excretion were in great part responsible for the muscular weakness producing physical inactivity and for the mental drowsiness all felt, also for the dyspnœa from which many suffered and for the minor bout of Cheyne-Stokes respiration which also occurred.

VI.—ON MENTAL REACTIONS

During the first few hours the faculties of perception and understanding were stimulated. The situation seemed appreciated in its correct perspective with the utmost clarity, and right decisions seemed easily and rapidly reached. Later, such periods of clarity were recalled whenever decision or thought was required, but periods of drowsy sleepiness started to intervene. Amongst the problems to be decided were the immediate necessity of rationing our slender drink and food resources and of working the plane's ground wireless; of not leaving the plane in any attempt to reach the sea or to search for help; of conserving our strength; of diminishing heat production by body inactivity; of the best time to fire the available twelve Verey lights and two magnesium flares which were carried; of other means of attracting attention; of the best manner of aiding our comrades when attacks of exhaustion seized them; of the best employment of the available sedative, sleeping, stimulant and other drugs; of the collection of night dew from the aeroplane wings and of its possible poisoning qualities from wing "dope" if drunk; of sanitary arrangements; and of the manner of dealing with possibly unfriendly Arabs if such appeared.

My personal estimate was 5 per cent. of chances we would be found on the first day, 95 per cent. on the second, and 100 per cent. on the third day, but I also estimated (though did not mention this) that probably two or three would be dead by the second evening and only two or three would survive by the third evening. Death would, I think,

have been easy, with increasing drowsiness, breathlessness and cardiac failure.

A few delusions of mild degree arose, *e.g.*, that it was raining beyond the plane, and the individual (who was too weak to move) was being restrained from reaching the cooling water. Some dozed and dreamed. One dream was of turtles waddling in their dozens from a river, fattened by feeding on corpses, and advancing over the desert hungry for their latest victims. Their huge red eyes gleaming in anticipation formed a target for the thrust of the point of the dreamer's umbrella; when thus blinded they fell on one another. Rather too realistic a dream in such circumstances!

The first sounds and sight of the R.A.F. relief planes were too good to be accepted. One heard and refused to believe; one saw and looked again, and yet again, lest our senses deceived us. The realisation of being saved produced deep emotion even to tears. This was followed in some cases by a fear that we had not been seen, or could not be reached, or would again be lost. And again, when we were saved and drinking freely in an R.A.F. bomber, flying back to Bahrein, advice was offered that we should drink no more but save our water, in case the bomber became stranded and we again became waterless! I myself in my host's house at Bahrein was about to pour water from a large jug into a basin to wash my hands, when suddenly my raised hand stopped. I could not pour out this fluid, each drop of which was so precious in such quantity and for so wanton a purpose, and it took a real effort to pour out that water!

We owed our thirteen lives to the R.A.F. flight that found us, and to all those of the R.A.F., or of the Imperial Airways, or of the Royal Navy, who stimulated and helped in so rapid a search—to them our gratitude is in proportion to our debt. Had it not been so rapid it would have been too late.

VII.—ON HYPERPYREXIAL HEATSTROKE

Though fortunately no cases of heat fever arose amongst the passengers or crew of the *Horsa*, yet ætiological factors link this condition so closely to heat exhaustion, and the recognition of the factors contributory to hyperpyrexial heatstroke in Indians is so important, and their distinctive treatment, if life is to be saved, is so vital, that brief reference to hyperpyrexial heatstroke in this contribution seems justified.

My original work on this condition was founded on cases from Mesopotamia, and was published in 1915 under the title of "Malarial and Other Infections as Ætiological Factors in Hyperpyrexial Heatstroke." The main conclusions were:—

1. In 1915, though the Indian forces in Mesopotamia outnumbered the British forces by four to one, yet 96 per cent. of the cases of heatstroke (including effects of heat) came from the British troops.

2. Amongst Indians, hyperpyrexial heatstroke is rare, and pure (*i.e.*, uncomplicated) hyperpyrexial heatstroke due solely to heat is excessively rare. Indeed, it should be assumed that if an Indian even under atmospheric conditions predisposing to heatstroke develops hyperpyrexia, then there is some underlying unrecognised infection which demands diagnosis and treatment.

3. In considerably over 50 per cent. of cases amongst Indians the causative infection is malaria. It is, therefore, wise to treat all hyperpyrexial heatstroke in Indians as cerebral malaria emergencies, until the contrary is proved. Especially is this so when they develop in a malarious region or show an enlarged hard spleen, or give a history of recent attacks of malarial infection.

4. Amongst Europeans the possibility of two other common causes should be considered: (i) Exposure to the sun from inexperience and from non-acclimatisation; (ii) Intemperance.

Acute conditions due to great heat give rise to medical emergencies which demand clear thinking and immediate treatment if life is to be saved.

Nursing News

WE offer our congratulations to two Guy's nurses on their recent appointments.

Miss Dorothy I. Henderson has been appointed Matron of the Surrey County Hospital, Guildford. Miss Henderson has held several posts at Guy's, including Second Sister in the Preliminary Training School, Hospital Housekeeping Sister and Senior Night Sister, a post which she still holds. She has also worked in South Africa, and at the War Memorial Hospital, Shooter's Hill.

Miss Ruth H. Pecker has been appointed Registrar to the General Nursing Council of Scotland. Miss Pecker is the first nurse to hold this post. Since completing her training at Guy's in 1917 she has had a varied experience as Ward Sister, Night Sister, Home Sister, Sister Tutor at Shrewsbury, Chester and Liverpool. Since 1932 she has been the Midland Area Organiser for the College of Nursing.

We wish Miss Henderson and Miss Pecker happiness and success in their new work.

Recent Additions to the Wills Library

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Wilhelmina Stitch at Guy's ?

(*With apologies*)

FOR weeks, and weeks, and weeks the nurse has toiled with many a whispered curse, and carried bedpans up and down the ward, while on her face a frown was plainly evident to all, announcing that she had the call, although, alas ! had not the will to tend the sick and heal the ill. And now the Matron, always sweet, has seen her way to give a treat, and said that she will give one night (as long as all within her sight remain as sober as a rock) for dancing up till 12 o'clock. So now, at nearly half-past eight the nurse, with steady measured gait, clasped tightly in a student's arms, is showing off her maiden charms, and dancing slowly round and round, in time to waves and waves of sound, which alternate from bad to worse, and make the student and the nurse—astonishing though it may seem—collapse into a kind of dream and look into each other's eyes, emitting hushed, expectant sighs. And this goes on for perhaps an hour until the band, which, getting sour by sitting in a kind of trance and watching other people dance, decides that it had better go and have a lemonade or so.

The student, from the very first, has tried to hide a growing thirst, and now is so completely dry, he thinks he'd better have a try to lose the nurse (no easy task) and empty half his pocket flask. Accordingly he takes the line that, though it doesn't really shine, her nose could do with touching up, and, as the band has gone to sup its lemonade he thinks she could perform it now, if perhaps she would. The nurse, completely taken in and knowing nothing of the gin (selected for its lack of smell), assumes that everything is well, and, fingering her powder puff, she hurries off to do her stuff.

The student, who at last is free, makes furtive tracks for some place he took notice of when he came in and marked down for his future sin ; and there, with feverish delight, makes sure that he is out of sight, and, loosening the cork with skill, prepares to sozzle with a will, but no ! a voice

says in his ear, " Beware ! You can't do that there 'ere," and, after weighty pause, " Beware ! Not 'ere you mustn't do that there ! The nurses, sweetest little lambs, have been instructed from their prams that drinking isn't really nice ; in fact, it is a horrid vice. And so we try to make it clear that drinking's rather frowned on here."

The student, absolutely foiled, his little plan completely spoiled, his visage red, his temper black, repeats his wrathful journey back, and finds the nurse already there with powdered nose and tidied hair. She welcomes him with sweet delight and asks him if she's quite all right and if he really loves her dress. His dried-up throat emits a " Yes," which, even to his troubled mind, is just a little bit unkind. The nurse, however, filled with hope, her face aglow with toilet soap, decides that obviously now is not the time to have a row, and, saying that she would adore to dance, she leads him back once more. And so together round they go ; the student, filled with arid woe and quite unable to confide, the nurse unable to decide if bullying or love is best to make him get it off his chest.

And now the weary hours have passed and 12 o'clock has come at last. The conversation perhaps has waned and even grown a little strained The student, harried by his thirst, has cursed and sworn and sworn and cursed, and even though he tries and tries, he can't produce those wistful sighs. The nurse, alarmed by this display, has quite forgotten what to say, and really is a little peeved, and never was so much relieved to hear " God Save The King " before and stagger off the ballroom floor, and, after all good-nights are said, to totter sleepily to bed.

X. Y. Z.

Reviews

Guy's Hospital Reports. July, 1936. Vol. 86, No. 3.

THE dictum that prophets are not without honour except in their own country is obviously untrue in many circumstances ; that it is so in the case of a review of the *Guy's Hospital Reports* by a member of the Hospital may or may not be surprising. It is certainly not going too far to say that each issue of this ancient publication is welcomed the world over ; the present very able editors faithfully maintain the standards of the past, and this number is found to contain a mass of literature both useful and interesting, the perusal of which should well repay the qualified and unqualified students of medicine.

Unfortunately, this review will not appear until the October number of the Reports has already been published. Space will only allow a brief summary of the contents.

That Mr. C. H. Fagge should have been the Hunterian Orator for 1936 is a fact which calls for congratulation not only to himself but to the Hospital. The tracing of the effect that John Hunter had on John Hilton's life as a teacher and surgeon is more evident than appears at first glance, and the character of this famous Guy's man is most admirably portrayed. One cannot help wondering whether any of a younger generation will see a resemblance in this study between the Hunterian Orators of 1867 and 1936.

The article by Dr. R. E. Smith might truly be called a classic one. The unique opportunities afforded him as M.O. to a large public school have not been wasted, and a concise and comprehensive study of that baffling disease influenza has been produced. The mass of data give a clear picture of the many-facetted pattern of the malady and its complications, and help to give some indication as to the lines of further research into the ætiological factors.

There is evidence of the stimulating effect of Dr. Hurst upon the authors of the two articles on " The Ætiology of Cancer of the Stomach," where a comparison of the incidence of this disease in Holland and England has been made. Infinite pains have been taken by Dr. G. A. M. Lintott in the laborious task of searching and sifting case records, and Mr. Herbert and Dr. Bruske supply the additional evidence necessary to prove the point ; this appears to be the important one that Dr. Hurst has so frequently stressed, namely, the role of chronic gastritis as a pre-cancerous condition. There appears to be a common factor responsible for the greater incidence of both ulcer and cancer of the stomach in the same type of patient ; this is extrinsic in origin and due to chronic irritation of the gastric mucosa by a number of factors.

Many persons will know already Mr. Bulleid's work on the relation of dental sepsis to systemic disease. In the Cartwright Prize Essay of 1935, republished in these Reports, he clearly gives strong evidence both of the fact that pulpless teeth must be considered as septic foci and the relation of these to streptococcal lesions manifest elsewhere in the body. Whether some will take this as a warrant for further ruthless dental

extractions in every "ill that flesh is heir to" is questionable, for the author himself is broad-minded and non-committal.

It seems certain that Dr. Bruce-Pearson was the first person in England to describe the very interesting condition of recurrent swelling of the parotid glands. In this number two further cases are noted; these seem to be caused by different factors from those in the first series published in 1935. But fame that comes to him that describes a "new disease" is not always allowed to rest on a bed of roses; rumour has it that in certain artistic cases it is wiser to drain the pocket before the duct.

Dr. E. T. Conybeare records a difficult case for diagnosis, in which a child suffering from leukæmia gave firstly the picture of one with rheumatic fever and then with Still's disease. The presentation of such histories is always useful as well as interesting, in that it affords a reminder to the unwary clinician.

Dr. Hugh Barber describes a typical example of the rare laryngeal vertigo syndrome, occurring in a medical man, and ably considers the differential diagnosis. That this form of seizure is hardly recognised at the present day, although originally recorded by Charcotin in 1876, is a point that is truthfully noted. It is to be hoped that this is due to its real infrequency, especially if it shows a predilection for the medical profession.

Dr. Cameron and Mr. de Navasquez take a step forward in the task of elucidating the exact pathology of "epituberculosis," after having the unusual opportunity of studying the autopsy of a case. The question as to whether all cases showing the typical radiographic appearance have a quiet or healing tuberculous pneumonia, as in this case, is not settled, but opposition is certainly given to the theories of simple collapse from pressure of a hilum gland, or of an "allergic exudation."

Mr. C. G. Pantin gives a clear description of the anatomical facts relating to the peritoneal "gutters," and the physiological ones concerning sensation of this serous membrane, and stresses the importance of intimate pre-operative knowledge of these in cases of peritonitis.

Textbook of Medicine. By J. J. CONYBEARE, M.D., F.R.C.P. Published by Messrs. E. S. Livingstone, Ltd. Third Edition. Pp. 1,003. *Price* 21*s.*

THERE are, we know, eminent clinicians who despise textbooks and who consider the spoken voice the only medium by which to impart the practice of their teaching, but we, perhaps because we prefer a quieter life, or perhaps because we have never been able to remember all these gems from the bedside, find textbooks of the greatest use in bridging some of the larger gaps in our knowledge which are apt to arise where no systematic method of teaching is attempted.

In this connection we have often had occasion to refer to Dr. Conybeare's well-known textbook of medicine and take a particular delight on welcoming the third edition, which has just been published.

Sir William Osler was, we believe, the last man to produce by himself a comprehensive textbook of medicine; a gigantic feat in any case, and one which, owing to the rapid growth of the specialised departments, is now virtually impossible, and has been replaced in recent years by a series of works written by groups of specialists in collaboration under a general editor.

This is a practice which we think has much to recommend it, and in this Hospital we are fortunate in possessing two excellent medical textbooks compiled in such a fashion. Of Dr. Poulton's recent edition of Taylor's "Practice of Medicine" we have written in an earlier number, and, without attempting any comparison, would now draw our readers' attention to the new edition of Dr. Conybeare's "Textbook of Medicine."

In his Preface to this edition Dr. Conybeare states that his object is to offer the student and the practitioner the essentials of medicine within as small a compass and at as low a price as possible. This endeavour, laudable in itself, is one that calls for the most exacting editorship and untiring patience, in sifting from the ever-widening field of clinical medicine what may be regarded as the essentials and putting them in a guinea's worth of print. This extremely moderate price is a most remarkable feature of the book.

There are two notable additions to the list of collaborators, Dr. P. M. F. Bishop and Dr. W. D. W. Brooks, the former being responsible for the revision of the sections dealing with the endocrine organs, whilst the latter has assisted Dr. Geoffrey Marshall in writing those parts of the book concerned with diseases of the respiratory tract. Several other sections of the book have also been completely rewritten. These include the descriptions of the various forms of anæmia, as well as that of diabetes mellitus, whilst an entirely new account of diseases of the renal system has been added by Dr. A. A. Osman, and

Mr. R. C. Brock has contributed an article on subphrenic abscess.

The general arrangement of the book, however, remains almost the same, and, apart from the new sections already referred to, most of the additions deal with the question of treatment, which is described in much greater detail than is usual in medical textbooks, and which in our opinion is one of the most attractive features of the book, both from the point of view of the practitioner and the student.

In all a most readable and lucid account of the modern essentials of medicine, which may be recommended without reservation and which is most fittingly dedicated to Lord Nuffield in appreciation of his many generous benefactions to medicine : a sentiment which we would endorse most gratefully.

Remedial Exercises for Certain Diseases of the Heart and Lungs. By HESTER S. ANGOVE, T.M.M.G. Published by Messrs. Faber & Faber, Ltd., London. Pp. 162, 20 Illustrations. *Price* 6*s*.

IT is not given to many to be in charge of a Department from its beginning and to see its size and importance steadily growing, but that has been Miss Angove's privilege ever since she first came to the Massage Department at Guy's just before the war, when it was housed in what is now the Deep Therapy Department, and she continued to work there until her retirement this last August. This book presents her experience in what may well have been a favourite part of her work. Its object is to enable the massage student to understand changes, causes and symptoms of some diseases of the heart and lungs, and to learn how they may be benefited by massage and remedial exercises. She pays a merited tribute to the late Dr. G. H. Hunt, who helped to establish a routine treatment for those lying in bed and for those able to do a certain amount of their ordinary work, and she also learnt from him the main principles in the treatment of asthma by remedial work.

The book has first of all a short introduction on the physiology and anatomy of the cardio-vascular system ; then heart failure is dealt with, and the following chapters deal with diseases of the pericardium, myocardium (with angina pectoris) and endocardium, including valvular disease, cardiac overstrain, effort syndrome ; then follows a chapter on diseases of the arteries and veins, which includes intermittent claudication, Raynaud's disease, angio-neurotic œdema and Milroy's disease. This study of the circulation occupies the greater part of the book. The respiratory system is arranged in a similar manner, at first general anatomy and physiology, and then the diseases of the respiratory system beginning with the common cold, and followed by diseases of the tonsils and adenoids ; the diseases of the lungs which are dealt with are pneumonia, bronchitis, asthma, bronchiectasis, and finally there are sections on diseases of the pleura and tuberculosis.

The book is essentially practical in its aim, schemes of exercises are given in detail for each of these conditions, and very often cases are cited. There are some good illustrations, particularly one showing varicose veins, another showing clubbing of the fingers ; then there is a photograph of a class of small children being taught breathing exercises in the Massage Department.

Considering the increasing use of remedial exercises and massage, and the growing number of schools and students, there should be a demand for the book. The reviewer, when for a short time he was responsible for the teaching in the Massage School, well remembers a most unsatisfactory book used as a textbook by students which contained a most surprising mixture of poor physiology and unproved hypotheses ; it is a relief to welcome this volume. An occasional mistake in the physiological and medical part of the book has been met with, but this might be expected in a book written by someone not specially trained in these subjects ; such errors can readily be amended in a second edition, which should soon be called for.

E. P. P.

Dental Surgery and Pathology. By T. W. WIDDOWSON, L.D.S. (Eng.), Dental Surgeon to King's College Hospital, and E. V. B. WIDDOWSON, L.D.S. (Eng.). Published by Messrs. John Bale, Sons & Danielsson. Third Edition. *Price* 35*s*.

THE aim of the authors has been to write a book which constitutes a combination of the authors' observation and practical experience with a compilation from the standard works in Dental Surgery. In this they have succeeded, but unfortunately their excessive zeal for tabulating the whole text, even to the finer details, has made any sustained reading of the book quite impossible.

The book is over 700 pages in length, and when most of this is tabulated, an hour's reading makes one realise how unattractive and unpalatable this can be. The authors submit that the value of tabulating is realised when such a publication is read in conjunction with the larger works on the

subject, but I would suggest that the poor dental student has very little time to delve into the larger works, and even if he had, that from the examination point of view he would be much wiser to read a dental surgery and pathology book which outlined the essential principles of dentistry, upon which he could later enlarge to his advantage.

The book, however, will serve as an excellent book for reference, both for the general practitioner and student.

The drawings, diagrams and illustrative coloured plates, of which there are many, are extremely good.

There is a chapter on inflammation and bacteriology by H. A. Lucas, which is a relief from the rest of the book in that it has not been carried away by the zeal for tabulation, and makes one wish that the rest of the book was written on the same lines.

W. H. J.

Surgery for Dental Students. By PHILIP H. MITCHENER, CLEMENT E. SHATTOCK, EDWARD G. SLESINGER and CECIL P. G. WAKELEY. Published by Messrs. Baillière, Tindall & Cox. *Price* 12*s.* 6*d.*

IT has been exceedingly difficult in the past for dental students to estimate the extent of knowledge in General Surgery necessary for the imminent examination, and for the more remote but none the less important future, as practising dental surgeons.

Now the matter has been solved for the lucky student, and for the wise practitioner who will take the trouble to read this book. The authors have come in contact with the dental student, as teachers, and with many of the present dental practitioners who have recently sat for the Royal College of Surgeons' Diploma, and have as examiners, learnt the especial difficulties that beset the student tackling General Surgery.

The book consists of 360 pages, and is well illustrated. It somewhat fails, however, in not containing coloured plates of the less common conditions discussed, as very often the dental student does not come in contact with them. Consequently it is difficult for him to visualise the pure surgical conditions such as an early rodent ulcer, lupus vulgaris, fungating carcinomatous tumours, visible manifestations in syphilis such as chancre, etc.; and the addition of coloured plates would definitely impress on his mind pictures of such conditions which would, perhaps, be of great help to him in recognising any of such cases in his future career.

The book is attractively written and holds the interest of the reader throughout. It opens with simple bacteriology and general pathology. Inflammation, resolution, suppuration, regeneration and their treatment cover four and a half pages, and it is amazing how successful the authors have been in reducing these complicated processes to essential principles, and yet make them so understandable; and so it is with the rest of the book.

The book is very practical. The clinical signs, symptoms and treatments are dealt with fully, but the pathology is brief.

The last chapter, written by Dr. A. D. Marston, anæsthetist to Guy's Hospital, on dental anæsthetics and artificial respiration, is invaluable, and should be read not only by the dental student but by all medical men. To those who are fortunate enough to have been able to attend the lectures on dental anæsthesia, this chapter will afford the opportunity of revising the knowledge he imparted so well; to the less fortunate who did not have that privilege it will give them the chance of obtaining knowledge of the art of giving a smooth and trouble-free anæsthesia. If the general medical practitioner would see his way to read this chapter and inwardly to digest it, I am sure it would make him a much happier man in the knowledge that he would add at least ten years to the life of his dental colleague, in that the latter would be able to proceed with his operation without the traumatic hurry and worry that is unfortunately so often characteristic of the simplest extraction. It is a pity that more prominence was not given to this chapter, for without belittling the rest, this chapter alone is worth the very moderate price of this book.

Only a very unwise dental surgeon would omit reading this work.

W. H. J.

Guy's Hospital Gazette
(ESTABLISHED 1872)

A Journal of Hospital News, Medicine, Surgery and Dentistry

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Marriage, Birth and Death announcements inserted free.

The Editor will, at all times, be glad to consider articles or sketches, provided that they are accompanied by the writer's name and address, not necessarily for publication. Authors who desire reprints of their papers should make their own arrangements with the Printers when they return their proofs. All contributions to be addressed to *The Editor*, who does not accept responsibility for the views expressed by contributors.

Sport

Rugby

Guy's v. Cambridge University

A LARGE crowd turned up at Honor Oak Park on Wednesday, November 4th, to welcome Cambridge University, who had won all their previous matches very comfortably.

After a most exciting first half, in which the Hospital played magnificently, the University gradually wore down the defence and won easily by 5 placed goals and 2 tries (31 points) to a placed goal (5 points).

With Stewart injured and Wright preparing for his Finals, Guy's brought in Birks and Douglas to complete the back division. As Robins was nursing a damaged rib, Forbes occupied his place in the pack.

Cambridge fielded a powerful side, which, with one or two exceptions, had been so successful earlier in the season.

The University set the pace, but from the kick-off Guy's made up their minds that they would not allow Cambridge to settle down. The first half produced magnificent football on both sides, with Guy's all out to put the perfect machinery of Cambridge out of gear. For some time they were successful, and the 'Varsity had all their work cut out in trying to keep out the lightning raids of the forwards and quick passing movements of the backs.

With the forwards packing low and solidly, Nicholson was beating Chadwick for possession time after time, and in the loose they displayed splendid dash with Darke, Forbes and Fletcher always to the fore.

Ably supporting the pack were Birks, Steytler and Dick at his best, all tackling superbly and never allowing the Cambridge backs to get into their stride.

On the other hand, the Hospital three-quarters were always ready to develop in attack, and on two occasions Dick and Steytler cleverly deceived Forrest, Roden and Kemp, and Crawford was nearly over following one brilliant bout of passing.

Against the run of play Cambridge took the lead, when Kemp at fly-half countered the Hospital mid-field tackling by using the diagonal kick ahead and Rawlence dashed ahead, beat Sanders, and touched down for a try, which Forrest converted.

From then on Guy's fought back splendidly and, following a glorious run by Dick and a touch-finder by Steytler, Guy's obtained the ball from a line-out, and Fletcher flung himself over for a try, which Kark converted (after no charge) with a great goal from the touch-line.

Even play followed, but, although Guy's more than held their own, they failed to pierce a cast-iron defence and a splendid first half ended with the scores level.

After such a magnificent display, visions of a grand revival ran high among the Hospital supporters, but these were dashed to the ground soon after the interval when Cambridge started off in whirlwind fashion and registered a try by Roden, following a kick ahead by Forrest, and the latter added the goal points.

For some minutes Guy's held their opponents, but Cambridge quickly got into their stride, and by varying their tactics and exploiting the kick ahead, gradually wore down the Hospital defence before working up for another brilliant try. This came as the result of a fine piece of work by Kemp and Rawlence; Kemp took a pass from Low and reverse-passed to Rawlence, who had moved into mid-field. Rawlence cut through and returned the ball to Kemp, who reached the posts for Forrest to kick the goal.

A few minutes lates a heel from a loose scrum after a move to the left gave Kemp a chance which he took swiftly to run through the Hospital defence, which he caught on the wrong foot.

Keeping up the pressure, Cambridge played perfect football, and Campbell (who was a dangerous back row forward) was up to support a breakaway by Low, and a little later Kemp gave a perfect dummy before sailing in behind the posts for Forrest to convert the second of these tries. The final try came after Kemp had given the dummy before passing to Roden, who kicked ahead, which Forrest fielded, but, although tackled, he managed to pass to Rawlence, who ran over behind the posts for Forrest to goal.

Guy's never gave up trying, but they were up against a faster, cleverer and fitter set of players, and it was apparent that they had expended all their energy during the earlier part of the game.

Team.—W. B. Sanders; D. M. Douglas, P. H. Birks, R. C. S. Dick (Capt.), J. P. Crawford; J. van A. Steytler, K. A. Stanyon-Jacques; M. R. Kark, E. S. Nicholson, H. H. Crabb, A. Forbes, J. R. D. Williams, C. S. Darke, P. Fletcher, F. Walt.

Guy's v. Old Blues

AT Honor Oak Park on Saturday, November 7th, the Old Blues adapted themselves better to the conditions and well deserved their success by 2 placed goals and 2 tries (16 points) to nil.

Guy's fielded an unfamiliar side, which included only two of the regular back division, and Ziervogel came into the pack in place of Darke, who was absent on account of examinations.

The Hospital took the opportunity of introducing W. J. Lewis, a brother of Windsor Lewis, at scrum-half, but, playing behind a beaten pack, he had very few opportunities to show his real form. Furthermore, he was very closely watched by E. P. C. Oke, his opposite number, who was ably supported by J. S. Owen and E. M. Undery, two hard-working wing forwards.

The conditions were very bad, what with the rain and heavy ground, but the Old Blues appeared to revel in it from start to finish. Guy's started slovenly and within a minute, a rush by the Old Blues' pack compelled them to touch down. A penalty to Guy's brought temporary relief, and Morey found touch cleverly in spite of the attentions of two fast forwards.

On two occasions Steytler found the ball too slippery and sliced his kick when favourably placed, but eventually he obtained the ball in mid-field, gave a perfect dummy and cut through beautifully. With Crabb and Fletcher to carry on the movement a try looked certain, but the former knocked on with the line before him.

Offside against Guy's gave the visitors their opportunity, which they seized with both hands. After dribbling the ball to the Hospital 25, McRae cross-kicked to the right, where the bounce of the ball deceived Morey, and Undery scored in the corner.

This success stimulated the Old Blues to greater efforts and, after a quarter of an hour, D. W. Owen and O. R. Evans paved the way for G. E. Wells to race over behind the posts for Undery to kick a goal.

Guy's could make little headway against their apponents, who gave an exhibition of perfect team work by backing up on every occasion when in an attacking position and by magnificent tackling whenever Guy's started a passing movement.

Near the interval, following a five yards scrum, they pushed the Hospital pack over the line, and Oke touched down for Undery to kick a very fine goal.

In the second half Guy's saw more of the ball in the set scrums, but the Old Blues smothered every attempt to get the ball away and proceeded to give an object lesson in quick heeling in the loose. Time after time their threes had the ball, but Guy's tackled strongly and kept them out.

The Hospital were seldom allowed to get into their stride, and at the finish it was a question of how long they could keep out the persistent attacks of the visitors' forwards.

After sixty minutes' play another scrum on the Hospital line proved fatal, as the Old Boys repeated their previous success by pushing the Guy's pack over the line and J. S. Owen scrambled over for an unconverted try.

Guy's were obviously feeling the strain of the match against Cambridge and appeared a tired side. On the other hand, the Old Boys mastered the situation and conditions from the beginning, and always had a little in hand.

Team.—W. B. Sanders; L. E. Milton, P. H. Birks, R. C. S. Dick (Capt.), L. G. Morey; J. van A. Steytler, W. J. Lewis; H. H. Crabb, E. S. Nicholson, M. R. Kark, J. R. D. Williams, I. G. Robin, E. C. Sharp, P. Fletcher, C. F. Ziervogel.

Guy's v. Birkenhead Park

GUY'S suffered their heaviest defeat of the season when Birkenhead Park visited Honor Oak Park on Saturday, November 14th, and piled up the overwhelming score of 7 goals (1 dropped) and 2 tries (40 points) to a try (3 points).

In some respects it was an astonishing game, as for the first twenty minutes Guy's dominated the play and were within an ace of scoring on two or three occasions. Birkenhead were penned in their 25 in spite of the fact that they had sun and wind behind them, but, although Guy's pressed heavily—in fact, they crossed the line twice, but the Park managed to touch down—they were thwarted every time they got within scoring distance.

Then the visitors managed to break away from their own half and their first raid into Guy's territory after twenty-five minutes' play produced a try. This took the heart out of the Hospital, and from then onwards they were playing a losing battle against a side who gave a demonstration in hand-to-hand passing, seldom seen on any ground this season.

Guy's started off with plenty of confidence, and a nice run by Dick enabled Crawford to find touch in the corner. Another movement by Dick was anticipated by Hancock, who crashed Stewart immediately he received the ball. However, Wright came to the rescue and cut through to the visitors' 25, where a penalty was awarded to Guy's, but Kark's kick fell a yard short of the cross-bar.

A kick ahead was misjudged by Sanders, and Hancock managed to deceive Steytler, but his pass to Slater (who was unmarked) went astray, and Guy's retaliated by dribbling the ball to within ten yards of the line.

Steytler and Fletcher tried to force their way through, but the full-back intercepted and Yerbury did well to stop K. D. Downes when he was in full flight for the line.

Guy's were now playing like demons, and never allowed the opposition a moment's rest; first Crawford, then Fletcher, Steytler and Dick all made great attempts to cross, but were stopped on or over the line.

Then the pack broke away; Steel, who feigned to pass to the wing, gradually worked his way to Sanders, and then passed to Buckley, who kicked ahead and touched down for Bibby to convert.

This reverse appeared to demoralise Guy's, who allowed their line to be crossed on two further occasions before the interval. First Hancock, following a magnificent three-quarter movement, deceived the Hospital defence completely, to touch down behind the posts for Bibby to add the goal-points.

A little later weak tackling let in K. D. Downes, the Cambridge wing, who swerved past Steytler, passed to Slater, who scored in the corner for Bibby to kick a splendid goal from the touch-line.

A blunder by Sanders who fielded a long kick ahead but waited to be caught in possession some ten yards from his line nearly led to a further score, but Guy's managed to get round and find touch.

The second half was more or less a repetition of the Cambridge match, when after five minutes' play Hancock received the ball thirty yards out, cut through the Hospital defence, passed to K. D. Downes, who eventually sent his brother in for a try behind the posts, for Bibby to convert.

Almost immediately J. P. Downes sent in Buckley for an unconverted try, and a little later a magnificent bout of passing was completed by Wilson and once again Bibby added the goal points.

Birkenhead Park were now playing football of the highest class, backs and forwards combining perfectly, and with Guy's tackling very weak, it was not surprising to see the visitors go further ahead when another movement between the brothers Downes ended with a try by J. P., but this time Bibby hit the post with the kick.

A long kick by Crawford found touch near the corner flag and from a scrum which followed Stanyon-Jacques just managed to get the ball to Steytler, who passed to Dick; the latter side-stepped Downes before sending Wright in for Guy's solitary try.

Following this effort the Park dominated the game, and after Bibby had dropped a goal, K. D. Downes finished off a glorious round of rapid passing, by racing past all opposition with a brilliant effort, and Bibby again converted.

Team.—W. B. Sanders; C. G. Wright, R. C. S. Dick (Capt.), I. McD. Stewart, J. P. Crawford; J. van A. Steytler, K. A. Stanyon-Jacques; H. H. Crabb, E. S. Nicholson, M. R. Kark, J. R. D. Williams, A. Forbes, R. O. Yerbury, E. C. Sharp, P. Fletcher.

Hockey

Guy's v. Reading University

ON Wednesday, October 21st, the Hospital met Reading University at Reading. The ground was in good condition and gave promise of a fast game. Guy's were without their captain, J. B. Franklin, who was playing in the Middlesex County Trial Match, but the defence was strengthened by the reappearance of Needham in goal.

At the start of the game play was fairly even, Guy's, if anything, being the more aggressive. The defences were steady and neither side was given any opportunity of scoring. After about twenty minutes' play, however, Guy's scored the first goal through Martin. They attacked strongly after this, but several excellent opportunities of scoring were wasted through lack of steadiness in front of the goal. A few minutes before half-time Martin scored a second goal with an excellent shot from the right of the circle close to the goal line.

In the second half Guy's continued to attack, and play was mostly in the Reading half of the field, and Martin scored his third goal, another good shot from the right of the circle. The Reading forwards made occasional attacks, but they were generally well held by the Guy's defence. Though having few shots to deal with, Needham made several good clearances. Martin scored yet another goal following a clearance from a Reading attack.

And then, about ten minutes from time, an amazing change came over the game. The Guy's defence suddenly went to pieces and Reading scored two goals in quick succession. Guy's pulled themselves together, however, and were again attacking when the final whistle blew.

Guy's merited their win, and Martin is to be congratulated on a personal triumph, his four goals being well deserved. The defence was mainly sound, but the backs should curb their tendency to play in the forward line until their team has a much more substantial lead than four goals.

Result.—Guy's, 4; Reading, 2.

Team.—E. J. Needham; J. S. Astbury, T. C. Thorne; C. F. Wright (Capt.), A. C. Greene, H. A. Buck; E. J. F. Hinde, B. M. Cox, E. J. Martin, C. H. Phillips, G. C. Bough.

Fencing

Guy's v. Royal Air Force

IN another home match, on October 17th, Guy's met and defeated the R.A.F. by 14 bouts to 13.

The match opened somewhat gloomily, with the R.A.F. winning the foil, 6—3, but the epée result again put the score in our favour. In this at one time our weakest weapon Hacon fought extremely well to win all his assaults, and only had one hit scored against him. Our opponents were again slightly superior in sabre.

It was a very close fight, and we anticipate a keenly contested return match.

Scores.—Foil—Parfitt, 2; Marston, 1; Kemp-Roberts, 0. Epée—Parfitt, 2; Lane-Roberts, 2; Hacon, 3. Sabre—Denton, 1; Lane-Roberts, 1; Parfitt, 2.

Rugby Fives Club

THE Rugby Fives Club is fortunate in having Dr. R. D. Gillespie as President. We are very grateful to him for accepting this responsibility, especially as he is well aware of the problems with which we are faced and the difficulties in the way of any new venture such as the formation of a Rugby Fives Club meeting with any early success. It is very encouraging to see the interest he is taking in our activities, and we were very delighted to observe the pleasure with which he received the news of our victory in the first match of the season.

For the first full season fifteen matches have been arranged. In addition to these we hope to enter for the inter-hospitals competition, which we understand is to be held this year. At the moment we have only one team. It is hoped, however, to run some Second IV matches later in this season and to have at least two teams next year.

The Club is greatly handicapped by having no courts. As a result of this members get very little practice, and when matches are played we are up against the further difficulty of always playing in strange courts. However, we assure new members that if they care to play at any time it can be arranged.

In spite of many difficulties we hope to have a reasonably successful season. The Club is not lacking in talent. Two of our members are in the London University IV. D. L. Neustatter has been President of the London University Rugby Fives Club for some time, and we congratulate him upon his reappointment for this season. We also congratulate O. Baely on having already played for London University on two occasions this year. It is unfortunate that illness has prevented Chase, an old Cambridge Fives Blue, from playing for us this year. We hope, however, that he will be able to play again later in the season.

The first match of the season was played on Tuesday, November 3rd, against Bart.'s. This resulted in a win for Guy's by 94 points to 83. Neustatter and Baely played very well and won all their games easily.

Team.—W. L. Neustatter, O. Baely, W. B. Southwell, O. G. Lane.

FIXTURE LIST FOR 1936-37

1936.	
Nov. 3rd.	St. Bartholomew's Hospital.
Nov. 19th.	King's College.
Nov. 22nd.	Sutton Valence Masters.
Nov. 26th.	Alleyn's Old Boys.
Nov. 29th.	Nautical College, Pangbourne.
Dec. 2nd.	University College Hospital.
Dec. 10th.	Westminster Bank.
Dec. 31st.	Old Alleynians.
1937.	
Jan. 27th.	King's College.
Jan. 30th.	Alleyn's School.
Feb. 6th.	Dulwich College 1st IV.
Feb. 11th.	St. Bartholomew's Hospital.
Feb. 22nd.	Old Dunstanians.
Mar. 9th.	University College Hospital.
Mar. 13th.	Dulwich College 2nd IV.

Golf

THE President's Prize was competed for on Wednesday, October 21st, at Sundridge Park. The winner was J. C. Ritchie.

FIRST ROUND OF THE INTER-HOSPITALS CUP-TIES

On Thursday, October 22nd, Guy's defeated the Middlesex Hospital at the West Hill Golf Club, Brookwood. The weather conditions were good, and before lunch Guy's were leading in the foursomes by three matches to one. After lunch, Guy's took the singles by six matches to two.

On the whole, Guy's were much stronger than Middlesex, as many of the matches were won by a considerable margin.

The opponents in the next round are St. George's Hospital.

FOURSOMES

Guy's		*Middlesex Hospital*
B. C. M. Reed and I. Drybrough-Smith	0	F. L. Dickson and N. J. Haggar (3 & 1) 1
R. D. Allen and S. M. Whitteridge 7&6)	1	R. C. R. Gethen and A. J. May 0
P. D. Spooner and J. C. Ritchie (5 & 4)	1	N. E. Monteuvis and A. M. Thomas 0
P. Wilson and T. N. Praat (8 & 6)	1	D. C. Tomlins and J. C. Tounley 0

SINGLES

Guy's		*Middlesex Hospital*
B. C. M. Reed (1 up)	1	F. L. Dickson 0
I. Drybrough-Smith	0	N. J. Haggar (2 up) 1
R. D. Allen (2 & 1)	1	A. J. May 0
S. M. Whitteridge(8&6)	1	R. C. R. Gethen 0
P. D. Spooner	0	N. E. Monteuvis(2 up) 1
P. Wilson (5 & 4)	1	A. M. Thomas 0
J. C. Ritchie (3 & 2).....	1	J. C. Tounley 0
T. N. Praat (4 & 2)	1	D. C. Tomlins 0
Total	9	Total 3

Result.—Guy's won by 9 matches to 3.

Hospital Information, etc.

Notice

GUY'S HOSPITAL MEDICAL SCHOOL

Applications are invited for the post of Clinical Assistant, Whole-time, in the Radiology Department; duties to begin on December 1st, 1936; salary to be at the rate of £250 per annum.

Applications should be lodged with the Dean, in the Medical School Office, on or before November 25th.

T. B. JOHNSTON,
Dean.

Pass List

UNIVERSITY OF CAMBRIDGE.

The following Degrees have been conferred :—

Bachelor of Medicine and Surgery.

L. I. S. Campbell.

Bachelor of Surgery.

H. A. Hamilton.

Papers by Guy's Men

Arthur Bulleid. Diseases of the gums and their manifestations and interpretations (with four coloured plates). *Brit. Dent. Jour.*, 1936, lxi, 523.

H. C. Beccle. The modern treatment of general paralysis. *Med. Pr. and Circ.*, 1936, cxciii, 398.

J. A. Ryle. Flatulence and epigastric discomfort. *Brit. Med. Jour.*, 1936, ii, 906.

Ronald Jarman. The need of an anæsthetic chart. *Post. Grad. Med. Jour.*, 1936, xii, 450.

W. W. Payne. Further observations on acid metabolism in rheumatic children. *Arch. Dis. Childr.*, 1936, xi, 257.

W. W. Payne. Diabetes mellitus in childhood. *Brit. Med. Jour.*, 1936, ii, 960.

Appointments

Dr. H. N. Garrus, appointed Clinical Assistant in the Electrotherapeutic and Massage Department of the West London Hospital, Hammersmith, W.6.

D. J. Wigginton, L.D.S., R.C.S. Eng., has been appointed Dental Surgeon to the Victoria Hospital for Children, Chelsea.

Changes of Address

A. G. Johnson, 29, Sussex Gardens, Hyde Park, W.2 *Paddington* 7738.

Change of Name

Vincie Vernon Hilton Hoakai by deed poll has changed his name to Heung Ho.

Births

WRIGHT.—On 26th October, 1936, at Exeter, to Valérie (née James), wife of S. F. Wright, L.D.S. (Eng.), of 12, Church Street, Epsom—a son.

HILL.—On November 2nd, 1936, at Whitley Bay, Northumberland, to Dorothy (née Reed), wife of J. Hill—a son.

EDS. { M.A.P. / A.G.W.H.

GUY'S HOSPITAL GAZETTE

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PUBLISHED FORTNIGHTLY.

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PASSIM

ALL but sixty-three thousand pounds has been raised by the Appeal fund, and there has been an increase in the percentage of people who have replied of more than one per cent. That is to say, that of those who have received notices of the Appeal more than three per cent. have responded.

The latest donations have been from a " lonely spinster of very limited means " who sent us from Edinburgh, and in scholarly handwriting, the first payment of her old age pension, for which we are more than grateful. Messrs. Salomons, the chrome kid tanners, have been kind enough to send us eighty-four pounds, a guinea for each year that we have been neighbours.

Many people have asked us about the cost of the Appeal, and whether the total sum raised, one person inquired, would cover the cost of the enterprise. We are happy to be able to allay any such alarmism. The cost of the Appeal to date, including advertising and payments to all the Appeal Staff, has been only eleven per cent. of the takings, and that is exclusive of Lord Nuffield's conditional gift of eighty thousand pounds. Further, the cost is diminishing proportionately to the amount of money raised; therefore have we no cause for concern.

THE end of November and the comparatively parched conditions which have prevailed for the past few Saturdays seem to have had a most stimulating effect on football.

Millwall are safely through to the second round of the Cup, the Arsenal have leaped almost to the top of the League, and even the Hospital Rugby side have punctuated their rather monotonous series of defeats with a win over London University. This is particularly encouraging in view of the fact that, playing in Wales against Aberavon, one of the strongest sides on the list, they were only beaten by a narrow margin, and, but for some rather unfortunate decisions by the referee, we understand the score might have been closer still.

We are delighted to record this return to form, and feel certain that an all-round improvement will follow. Perhaps the challenge match with the patients in Addison may now be viewed with less concern.

WE seldom offer prizes, and the *Gazette* has never run a competition, but we are always delighted to give our readers the chance of making money, and would draw their attention to the generous offer by Dr. Gillespie of a prize of five pounds for the best paper on a psychological subject read before one of the students' societies.

Dr. Gillespie will judge the papers and, if no paper of a sufficiently high standard is offered, the prize money will be used to provide books for the Wills Library. This offer will close in April, 1937, and is made retrospective to October, 1936. We hope that Dr. Gillespie's generosity will produce some interesting work.

SIR HAROLD GILLIES, C.B.E., F.R.C.S., will give a lecture to the Dental Society on " Co-operation between Dental and Plastic Surgeon," illustrated by demonstrations, with patients, lantern slides and films on Friday, December 11th, 1936, at 8 p.m. in the Physiological Theatre. The President, M. A. Rushton, Esq., M.A., M.B., B.Ch., L.D.S. (Eng.), will be in the Chair. Coffee will be served in the College Smoking Room from 7.30 p.m.

SISTER Out-Patients is again appealing for help towards the Landon Tea and Entertainment, to be held as usual on Christmas Day at 2 p.m. in the Out-Patients' Hall. Funds are needed, and gifts of toys of all kinds (particularly dolls) would be much appreciated.

THE Guy's Hospital Employees' Association Dinner was held on Friday, November 27th, at the Bridge House Hotel, and was, as always, a roaring success. All "the great family" of the employees, as Mr. Eason calls them, were there, from Works Department, Counting House, and Laboratories, together with a large number of the Senior Staff; so the crowd was great, and the dinner was good, and the time passed delightfully.

After dinner the lawn tennis trophies were presented to Miss M. H. Luxton, secretary to Mr. Brooke, who had won the ladies' singles, and to Mr. Ireland, of the Museum, who had won the men's.

Then there were speeches and entertainment. Professor Eyre spoke wittily and well, and Mr. Mollison harangued us for that we did not advertise enough, and suggested how we should set about it. It was advertising, he said, that had made the Quins, at which Mr. Thompson's voice, like the bourdon of some great organ, rang out across the napery and wine-glasses: "Nonsense, it was their mother." And Mr. Eason spoke in his happiest vein, the deftest of after-dinner speakers, with his hand as usual on the neck of an empty wine bottle. We have always wondered whether he does it for inspiration or support. And Mr. Taylor, the President of the Association ("It is the art of showmanship," he said, "to keep the best till the last") closed the speeches with a charming reply to the Superintendent.

The speeches were intermingled with some excellent entertaining by professional artistes. Miss Beresford sang us after-dinner songs of a kind that went well with the wine; Mr. Joe Pearson, we thought, was brilliant, and sang us songs with the exquisite if slightly irrelevant titles of "Mary, bring the skipping-rope, Father's full of hops," and "We feed baby on onions so that we can find him in the dark." We have often wanted to see the man who could stay on even terms with the Superintendent over a matter of badinage, or even of persiflage, and now we have seen him. The repartees flew over our heads from Mr. Pearson on the dais to Mr. Eason at the high table, and Mr. Pearson didn't lose.

There followed some feats of prestidigitation, legerdemain and illusion with the cards, which were as well done as any we have ever seen. Mr. Clark, of the Bacteriological Department, and Mr. Muir from the Chemical Laboratory, were inveigled by the conjuror's wiles, and a trio was formed in the limelight of the stage from which proceeded astounding feats of magic. And Mr. Clark and Mr. Muir, despite the advantage of proximity, were just as astounded as ourselves. And after some pleasant and informal drinking with the renewal of old acquaintances, the party broke up after a remarkably pleasant occasion.

ALL those who had any sense left their gas fires in the College for a good warm at the Crystal Palace on Monday night. We wished, as we climbed the slopes of Sydenham, that our shoes had been stouter, for the hose pipes of the Penge and surrounding fire brigades played occasional capricious jets from the sides, and the going underfoot was wet. Near the Palace the crowds were very dense, and were prevented by solid walls of policemen from treading on the great snakes that, sinuously winding from long distances away, were hissing water at the building. Car-loads of police were continually arriving, first aid had to be given here and there, a few onlookers could be seen holding their bicycles above the heads of the mob, and many were bad-tempered with the plain-clothes chiefs in their bowler hats who controlled us with ruthless severity. The police did not co-operate well enough to enable us to get a really good view of the proceedings, but there were the usual firemen perched precariously on the ends of expanding ladders, and the jets of water were lit by the flames behind to a lovely incandescence.

The whole of the middle part of the building was destroyed by the time that we arrived, and the edges of the fire lit up the rafters eerily. Some cats and waxworks were within, awaiting exhibition, but, though the latter may have assumed strange shapes in the heat and Apollo come to look, gently subsiding, like Daniel Lambert, our thoughts were not with these. We pictured the death agony of the poor old elephant, that has had one eye missing these many years, and a hole in the side through which the straw protrudes, where some inquiring matron probed him too strongly with her umbrella. And what of the camel? It was for his screams that our ears were attuned, for him that our deepest sympathy was aroused. What is the loss of an organ and a few rolls of music beside the passing of childhood friends?

And as we watched this last and bravest firework display, we felt that the Old World was passing from us. The Crystal Palace stood alone, a strange extravagance in an age of carefully planned expenditure. At that golden time of commerce and prosperity when enterprises insisted on their returns, this fantastic creation, planned, it always seemed to us, as some gigantic bird cage, created a last link with the old age of Follies.

It was as though the profligate extravagance of the Georgians, in the building of the Palace became suddenly dominant, having been recessive for so long. And now this famous playground,

where sober Victorians caroused, is gone; and perhaps nothing ever became it so well as the manner of its passing. Did not Albert the Good, who so incredibly linked his name with this monstrous flight of Fancy, join hands with Sir Joseph Paxton among the stars, and look down with amazement on Anerley Hill?

WE are asked to announce that a Supper Dance organised by Guy's Hospital Massage and Light Departments will be held on Friday, January 15th, 1937, from 9 p.m. to 2 a.m., at the Hotel Splendide, Piccadilly, W.1. Tickets, 10*s.* 6*d.* each, including supper, can be obtained from Miss Saldanha (Light Department) and Miss Joseph (Massage Department). Tables can be reserved at an additional charge of 2*s.* per table. There is a free car park adjoining. Early application for tickets is essential as numbers are limited.

Silicosis

A Clinical Lecture delivered at Guy's Hospital by E. R. Boland, Esq., F.R.C.P.

GENTLEMEN,—When I was a student silicosis was a disease which one vaguely associated with gold miners in the Rand or occasional knife-grinders in Sheffield or other remote parts, and it seemed to be about as important to the average doctor as sprue would be in the Hebrides. But industry is moving south, and new industries bring new problems with them. Although the bulk of cases of silicosis are still found in the North and the headquarters of the Home Office Medical Boards for Silicosis are at Sheffield and there is no permanent centre nearer than Stoke-on-Trent or Bristol, the cases in London are increasing rapidly. I am dealing in this lecture only with silicosis, as it appears to be the only important member of the group of pneumoconioses.

All fine dusts are irritating to the lungs and bronchi and may cause inflammatory disease or predispose to other infections, but the only dust which produces serious disease of the lung with fibrosis is silica. Coal-miners' lungs are black with coal dust and iron-workers' red with iron oxide, but they are only seriously affected when silica occurs in the coal or iron ore, and any fibrosis they may show is due solely to the action of the silica. Fibrosis of the lungs has been ascribed to many inhalant dusts including inorganic dusts such as cotton and flock, but when the dusts are analysed they are found to contain varying degrees of silica, and the disease from which the patients suffer is due not to the fibre of the material with which they work but to the sand which is present as an impurity.

The pathological action of silica used to be ascribed to the sharpness of the particles, but it has been proved that this factor plays little or no part, and the effect is produced by chemical action of the silica. Silica is soluble only in alkaline solutions and not readily so even in an alkaline medium. The chemical analysis of silica is difficult, and the analysis of the various silicates and the assessment of their relative pathological importance is baffling even to chemists, so that we need not tread on such dangerous ground. I will refer to all the silicates comfortably by the generic name silica.

The dust enters the lungs through the bronchi and reaches the alveoli. Needless to say, it is only the very finest particles which reach the lung, and the liability of workers to develop silicosis depends directly on the size of the dust particles. The dust which reaches the lung is invisible to the naked eye and so small that it may pass through the closest of mesh filters. The greatest part of the dust is held up in the upper part of the respiratory tract, but that which reaches the alveoli produces proliferation of the cells which engulf the silica and carry it to the lymphatics. If the amount of the dust is small it is carried to the hilum lymph glands and eventually into the blood stream, and it is finally eliminated in the urine, but if the dust is in too great quantity the lymphatics become blocked with a mass of dust cells which cannot escape, and the chemical action of the silica causes fibrosis, which permanently blocks the channels; no more dust can escape from the lung, and fibrosis follows the presence of the masses of silica dust. Since some of the pulmonary lymphatics drain towards the pleura, this also becomes thickened, adherent and fibrotic, and silicotic nodules are found on its surface. This drainage towards the pleura is, perhaps, increased when the hilar lymphatics are permanently blocked.

Here is a lung from a patient who died of silicosis. The pleura is thickened and adherent and covered with whitish-blue nodules. There is an excess of colour pigment since the blockage of the lymphatics prevents the normal elimination of these innocuous

particles. Such a lung is extremely difficult to cut, and I have seen lungs which had to be cut with a saw owing to the hardness of the silicotic nodules, with their toughness enhanced by the fibrosis found throughout the lung surrounding the nodules. Often the unaffected part of the lung is emphysematous, and sometimes tiny cavities the size of a pea are found in the lung even when there is no tuberculosis. The recognition of silicosis as a separate disease entity has been slow, and its general recognition we owe to the work done on South African gold miners. In some countries even now it is possible for learned men to deny its existence as a separate entity and to describe it merely as a form of pulmonary tuberculosis under such confusing titles as miners' phthisis, etc. It is true that silicosis renders the lungs vulnerable to other infections and of these tuberculosis is the most common, and a very high percentage of cases die of it sooner or later, but by no means all cases do, and many die as a result of silicosis alone. That tuberculosis frequently complicates the disease is not surprising, since the tubercle bacillus more readily infects a damaged tissue than a healthy one, and the tubercle bacillus when it reaches the alveoli is normally removed by the same lymphatic channels as the silica, and when these channels are stopped it cannot leave the lung and finds in the dust damaged tissue a favourable site for its development.

The pathological picture is therefore often complicated by the occurrence of caseation and cavitation.

The symptom of silicosis which stands out above all others is dyspnœa. This is the most striking and most distressing feature of the disease. Not only is the alveolar surface diminished by fibrosis, but the expansion of the lung is affected by the fibrosis, which causes rigidity of the lung and pleura, so that the vital capacity is enormously reduced and the patient is dyspnœic on the slightest exertion or even at rest. Obliterative conditions of the alveolar capillaries may play a part in the dyspnœa, but the two factors I mentioned first of all are undoubtedly the most important. The patients often suffer from great exhaustion and lose weight. These symptoms may mean a secondary infection with the tubercle bacillus, but they occur without, and are probably due to anoxemia. The patients may die of cardiac failure, of respiratory infections such as pneumonia, or they may develop bronchiectasis, but a considerable proportion die of phthisis; some writers put the percentage as high as 75 per cent., but I think this is probably excessive.

The diagnosis of silicosis from other conditions causing fibrosis depends very largely on radiological evidence, but the diagnosis should always be at the back of one's mind, and in taking the history of any patient with pulmonary disease close inquiries should always be made into the nature of the work the patient has done during his life. The nominal occupation of the patient cannot always be taken at its face value. Two of the worst cases of silicosis I have seen were in a milk roundsman and an errand boy respectively, both apparently following harmless occupations, but the former spent all his spare time digging flints out of the chalk and turning them on a lathe into paper-weights, miniature lighthouses and other abominations; the latter in the many intervals between running errands, spent his time in a dark cupboard sharpening carving knives and such things on a grindstone. Another patient whom I suspect to have silicosis, although I cannot prove it, works in a custard powder factory. It would be libellous to trace any connection!

South African radiologists describe three stages in the development of the disease. The primary stage is that in which the lymphatics are becoming blocked and fibrosed, and the radiogram of the lung shows increased striation due to the thickening of the interalveolar tissue, the interlobar septa and the linear striations which spread towards the hilum. The hilum glands become considerably enlarged and irregularity of the diaphragm due to adhesions may be obvious, although this appearance belongs perhaps to the next stage. The primary stage is extremely difficult to recognise, as the intensity of normal striations varies so much in different individuals. It is for this reason that all new workers who engage in dangerous industries should have their chests X-rayed before starting. Subsequent early changes would then be easy to recognise.

The second stage corresponds to the period when the blockage of the lymphatics leads to the formation of silicotic nodules. To the picture of the first stage is added the appearance of diffusely scattered nodules varying in size from a pin's head to a pea or larger.

In the third stage these nodules are congregated into masses and opacity due to fibrosis is obvious. One characteristic feature of the disease is the density of the nodules which appear in the upper third of the lung opposite the upper border of the scapula and extending to its lower border. Upon these appearances of the last stage the changes due to tuberculosis are often superimposed.

It is easy to confuse the radiological appearances of silicosis with those of tuberculosis if silicosis is

not in one's mind, and I am sure a certain number of cases escape diagnosis. Last year I was shown a patient who was said to be suffering from advanced phthisis, as indeed he was, but the appearance of the X-ray made me ask him his occupation, and he told me he was a sandblaster. He showed the characteristic nodular masses, which are not like the infiltration seen in tuberculosis, and one would have expected to see cavitation if all the masses had been tuberculous. The enlargement of the hilar glands and the diaphragmatic adhesions were other characteristic features. He died a few days later, and the correct diagnosis was made almost by coincidence, which suggests that many cases escape diagnosis altogether. If tuberculosis has not complicated the silicosis the absence of the toxic symptoms of tuberculosis in the presence of gross pulmonary changes should arouse suspicion as to the nature of the infiltration.

The physical signs in the chest are not striking and never characteristic. In the early stage there is only great diminution of movement, with perhaps scattered rales; in the later stages there may be impairment due to the silicotic infiltration. The breath sounds are almost inaudible, as one might expect from the diminished movement of the chest, and the diaphragms do not move. Infiltration is rarely sufficient to give exaggerated conduction, but the fibrosis may be sufficient to produce increase in conduction.

To sum up, the obvious shortness of breath of the patient and great diminution of expansion of the chest in the absence of gross emphysema are the chief clinical diagnostic features.

I emphasised the importance of making inquiries about the patients' occupations, but for these inquiries to be useful it is necessary to know what occupations bring the patient into contact with silica dust. Miners figure largely in the tables of death from silicosis, but all miners are not exposed to equal risks. Coal miners, for example, in Great Britain have a death rate of only .2 per 1,000 employed on a five-year period, while tin miners have a rate of 11 per 1,000. Soft coal does not contain silica, and the disease in coal miners is only found in those who work with hard coal such as anthracite, which contains a certain amount of silica; tin miners have to drill through granite to reach the lodes of tin ore. The incidence of the disease in the hard rock drillers of the Rand gold mines has been notorious. Workers in stone suffer much more than miners in this country. The highest incidence is in those who work with sandstone, hewers and masons, with a mortality rate of 3 per 1,000. Next come the granite workers. Granite does not contain nearly so much free silica as sandstone, but the processes involved in getting it produce more dust. Next come workers with slate, which contains rather less silica than either of the other two. Those who work in what is called the refractories industry, that is, the industry which is concerned with the quarrying of granite or hard sandstone and its use for the manufacture of fire-bricks, kilns and the manufacture of metals come next. Much silicosis is found amongst those who work in potteries—the mortality being about 8 per 1,000. Powdered flint in used in many of the processes of manufacture and is highly dangerous, as it is pure silica in a state of fine dust.

Metal grinders and polishers suffer from silicosis also, not because of the metallic dust, but because of the abrasive materials used in grinding.

In the South the occupations most commonly associated with silicosis are sand-blasting and the manufacture of asbestos or abrasive soaps. I will mention no names, but abrasive soaps are the materials which won't wash clothes, but which make homes bright, and so forth.

Sand-blasting is becomingly increasingly common in England, and is one of the most dangerous industries of all. The process of sand-blasting consists in projecting finely divided quartz sand by compressed air in order to clean metal or to give metal or glass a special finish. I will deal with sand-blasting at greater length later in this lecture.

Asbestos is used in a very wide variety of industries, and the rock from which it is made contains a high percentage of silica. Disease found in workers in this industry has special features which I have not time to describe. The abrasive soaps to which I have made reference are made from quartz rock containing 98 per cent. of silica made up with alkaline soaps. In South London there was a factory engaged in the manufacture of this type of soap; through ignorance no protective measures were adopted, and most of the employees were girls of 14 or 15. Thirteen of the fifty-nine employed between 1921 and 1928 are already known to be dead of silicosis or tuberculosis or both, and there are probably many others still to die or who have died—so to speak, unofficially. The factory is closed!

The duration of employment is very important, since in some of these occupations it requires years of work before the disease is established, whereas in others the disease comes on with great rapidity. A coal miner, for example, who is cutting hard coal containing a small percentage of silica may work for thirty or forty years before the condition becomes clinically recognisable, whereas

a worker who uses flint dust for sand-blasting would, if unprotected, develop the disease in a few months. A worker who was cutting out quartz with a high-speed mechanical drill in a mine tunnel might breathe more silica in a month than a hand cutter working in the open air could breathe in a life-time. A lot of silica inhaled over a very long period of years is likely to produce less disease than a little of this amount inhaled over a short period, since the lungs can eliminate a certain amount of silica if given a chance, whereas if the lungs are exposed to masses of dust at a time, the lymphatics are soon blocked, the disease begins, and no further silica can be eliminated.

Once the disease is well established there is no cure, and, since the pathological changes are irreversible, the disease is progressive even after the inhalation of the silica has stopped, as the slow process of solution of the silica goes on and with it the resulting fibrosis. If the diagnosis, however, is made sufficiently early before there are great deposits of the dust in the lungs, the patient may recover.

Man-made diseases such as silicosis have this advantage over natural diseases—that even if they cannot be cured, they can be prevented. The deaths of four thousand workers due to chest diseases were notified in Great Britain in the five years 1931 to 1935; but even this figure probably only represents a small proportion of those who died of this disease and takes no account of the great numbers who have been disabled by it. A disease which is preventable and which is yet not prevented seems a blot on the social system, and so it is, but the problem is not quite as simple as it might appear. Since there can be no silicosis without silica, it would appear possible to forbid the working of silica in any form, but this would entail nothing less than the end of civilisation in its present form. We would return to the Stone Age without being able to work the stone, for there would be no sharp tools, no tin, little iron or copper, no anthracite, no sandstone, no slate, no granite, no asbestos, no earthenware dishes. Gold may still be necessary for our monetary system for all that I and the economists know, but we should have to do without it and return to barter or find some other standard.

We must, therefore, admit that it is essential to work with silica to a certain extent, but the extent should be as limited as possible, and unnecessary processes should be made harmless or stopped. Fortunately, the more essential processes are less dangerous than the unessential. There is no simple method of preventing silicosis applicable to all trades since they vary so widely that there is no one simple method of preventing the development of the disease, and separate methods have to be adapted to meet widely varying conditions. In miners there are regulations for the employment of dust traps on mechanical drills, for the prevention of dust by wet sprays or steam, and for the removal of dust by exhaust fans. In the metal industries, grinding machinery must be enclosed in airtight containers and dust must be removed by suitable exhaust ventilation. Masks are ordered to be used which are designed to prevent dust passing into the lungs or, better still, helmets are used in which the air supply comes from outside the building in which the work is being done. Sand-blasting is one of the most dangerous methods of using silica, and the worker is bound by law to use a mask or helmet, and, in addition, the work is done, where possible, inside an airtight cabinet with the sand-blaster outside.

Here is a whole sheaf of admirable regulations designed to prevent silicosis, and they go a long way towards doing so, but not far enough. Regulations can be got round, can be broken or can be disregarded. Exhaust systems may be ineffective or defective; mechanical drills may be inefficiently guarded or obsolete; no mask has yet been designed which is completely effective in keeping out dust, and since they are hot and uncomfortable they are liable to be discarded or improperly worn. The employer is unable to legislate for the carelessness of his employees, and the employee is largely at the mercy of the careless, unscrupulous or ignorant employer.

Whatever the various reasons may be, the fact remains that, although great advances have been made in the right direction, protection is still largely inadequate. It is easy to criticise, not so easy to offer constructive suggestions. One simple, if expensive, method suggests itself which would go a long way to prevent silicosis, or at all events to prevent the more severe cases. This is to provide for regular medical examination, and especially for radiological examinations. If every worker who comes into contact with silicosis were to be X-rayed at regular interavls, the earliest changes could be recognised and the worker could be removed from the dangerous atmosphere or the process could be altered. The intervals at which radiographs were taken would depend on the nature of the particular occupation. Hard-coal miners would require, perhaps an annual radiograph, while sand-blasters would be X-rayed monthly. Provisions are already made in most of the industries for an initial examination at the time of employment and for periodic examinations, but no compulsory regulations lay down the frequency of examination and no provision is made for radiological examination either on

engagement or at any later period before the worker is actually silicotic and comes under the control of the special boards. South Africa was the pioneer country in instituting preventive methods and legislation against silicosis, and has taught the world most of what it knows of its causation, diagnosis and control. At the gold mines of the Rand, the drillers, whose job is the most dangerous, are X-rayed before starting work and are X-rayed at almost monthly intervals during their spell as drillers. They are only allowed to be employed at this particular job for a few weeks, and are then employed on the surface for a period before resuming their dangerous task. What I have said of the ætiology of the disease shows the rationale of this procedure. During the driller's six weeks' spell, dust is inhaled whatever the protective method used; during the period when he must be employed above ground in the open air there is a chance of the silica being eliminated before he is exposed to the risk once more. These methods do not prevent silicosis altogether, but they have gone a long way towards diminishing its incidence. Similar methods adopted here would be equally effective.

All the regulations which I have shown here date from 1930, when the Workmen's Compensation Act was amended for the first time to include silicosis. Before this date a sand-blaster who stubbed his toe at the works could claim heavy damages from his employer, who might not be morally, although legally, responsible; yet the same employee could have his lungs destroyed at his work without any redress for himself or his family. Before this date many of the better employers had made every effort to prevent the disease, but they were handicapped by ignorance and the necessity of competing with less scrupulous rivals. The Act making the employer financially liable has had an excellent effect. He is stimulated to make every effort to improve working conditions quite apart from the regulations enforced by ministerial decrees. I think if his financial responsibilities were made greater, even more progress would be made. At present the maximum payment for total disablement is only 30*s.* per week, and if the worker dies the maximum sum payable is £300. The worker may have been earning £3 or £4 a week, and still has to maintain his wife and family although only receiving 30*s.* If the employers were liable for a higher rate of damage, say the amount the man would have received if he were capable of working, it would act as an extra stimulus to find new safe methods of work. No amount of public opinion was able to stop the use of phosphorus for matches, but when financial considerations were sufficiently strong, the industry set to work and discovered alternative methods which were completely harmless and more efficient.

The basic industries must go on, and if the preventive methods are too expensive, they could in part be a national charge as they are a national service, but strict regulations and heavy liability for compensation would prevent the use of silica where it is not really essential. In sand-blasting, for example, lead shot has replaced the use of sand. This, as a matter of fact, does not entirely prevent silicosis in sand-blasters since the metal they sand-blast is often covered with sand from the castings, which only serves to emphasise the difficulties which arise. Sand-blasting is also used for decorative glass and metal, but there are other methods equally efficient, although more expensive. At a pinch we would not be very much worse off if the process had to be abandoned.

In a previous clinical lecture I showed a case of silicosis in a man who worked in a new process for making concrete white. It illustrates well most of the points I am trying to make in suggesting methods of preventing silicosis. The process in the first place was not an essential one. Its only object was to improve the appearance of the concrete; I don't believe it greatly increased its strength, and anyway there are other substances which can do this better. To get the white colour, crushed and powdered flint was added, and within a few months the forman on the job had a degree of silicosis which normally would take years to achieve. If he had been X-rayed and examined at intervals during this dangerous and experimental process his disease might have been prevented. As it is he was an athlete, he is 34, he has the most distressing dyspnœa, he will probably die in a short time, and in the meantime he gets 30*s.* per week. The firm for which he works is an excellent one which takes every legal precaution, and is, in addition, genuinely anxious to do all it can to prevent silicosis. Probably as a result no other workmen will develop silicosis, but it should not have been possible for this one to do so.

Perhaps all this may seem remote from a clinical lecture, but I mention this in the hope that one of you may become Minister of Health and deal with the matter, although I believe it may require a Medical Dictator or a Medical Kommissar to enforce the regulations for its prevention. As a start I would suggest trying the effect of a Draconian law preventing the use of powdered or crushed flint in any circumstances. If you turned your ministerial collar up and waited till the feathers and dirt settled, I believe you would find that industry could get on quite well without these materials, but it won't try until it is made to.

Progress in Anæsthesia

A Paper read before the Dental Society of Guy's Hospital, by G. H. W. Keates, Esq.

MR. CHAIRMAN and GENTLEMEN,—The idea of rendering a person unconscious for the performance of painful operations is no new one. The literatures of all the ancient civilisations are full of references to such attempts. The drugs used were numerous, and very complicated instructions for their exhibition were given; chief among them were mandrake, hemlock, cannabis indica and opium, though Hippocrates favoured hellebore. But though we now know opium to be the most effective, it was the least used until a later date.

Thus, " the wine of the condemned " mentioned by Amos was almost certainly a preparation of cannabis indica, and the Scythians, we are told, inhaled the fumes obtained by burning an extract of this drug to produce a drowsy state; this is extremely interesting because, as Snow pointed out, the alkaloids of cannabis indica are non-volatile, so that it must have been the alcohol used in making the extract that produced this state, which was therefore a true anæsthesia, though apparently they did not go as far as we do now. The Assyrians produced loss of consciousness by the compression of the carotid arteries. In this connection it is of interest that the Russian term for carotid artery when literally translated means the artery of sleep.

Through the Middle Ages, no appreciable advance was made, though numerous draughts and potions were used, all depending for their action on the above-mentioned drugs. In the seventeenth century it was becoming a popular form of entertainment to produce the hypnotic state by making passes in front of a person with a magnet. In 1661, Greatrakes, a professional " stroker," as these entertainers would call themselves, claimed to be able to produce an anæsthetic state, and is said to have demonstrated his art before Charles II, but it was not until about 1770 that Anthony Mesmer drew attention to the fact that people in an hypnotic trance could be rendered analgesic by suggestion. Mesmer was undoubtedly a quack of a most dangerous type, but his method aroused considerable interest and surgeons tried it on several occasions, many successes being reported.

It was revived by Braid, of Manchester, in 1841, who reported 100 successful cases. However, the technical difficulties prevented its more general adoption, and we now know that it is by no means free from danger.

Comparative failure of general methods led surgeons to try local and regional ones; thus in 1784 James Moore, following a suggestion of Ambroise Pare, produced anæsthesia in the limbs by compression of the nerve trunks. This method was tried by John Hunter, who, at St. George's Hospital, successfully amputated a leg under the effect of simultaneous pressure on the femoral and sciatic nerves. But no real advance in local anæsthesia was made until Koller introduced cocaine in 1884.

Much is owed to the work of Lavoiser, Priestly and Cavendish, whose discovery of the gases oxygen, nitrogen and nitric oxide opened vast fields for experiment, and in 1772 Priestly prepared, isolated and described nitrous oxide, though he failed to recognise its anæsthetic properties. In 1798 Dr. Beddoes opened his pneumatic clinic at Clifton. This institution was founded by the generosity of Mr. Wedgwood, son of the famous potter, who in the deed of gift made the following statement: " It is worth while to expend this sum of money in order to show that these gases are of no value to medical science." But the real importance of this event lies in the fact that the first superintendent was Sir Humphrey Davy. He, in his experiments with nitrous oxide, noticed that the gas had the property of relieving his own toothache, and in 1799 he made the following statement: " As nitrous oxide in its extensive use appears capable of destroying physical pain, it may probably be used in surgical operations in which no great effusion of blood takes place." I have quoted this statement in full as it is often said that Davy never thought of using the gas as an anæsthetic, whereas I think it shows that not only did he think of using it, but that he also appreciated one of its chief disadvantages, namely, its liability to produce hæmorrhage.

It was probably Davy's work that stimulated Henry Hill Hickman to experiment with the gas. Hickman, a young Shropshire physician, made many careful observations on animals under the influence of nitrous oxide, performing quite extensive surgical operations on them. His claims were, however, ridiculed both in England and France. This was doubly unfortunate as in 1829 the young man died of a broken heart at the early age of 29, and the introduction of gas as an anæsthetic was postponed for nearly twenty years.

In the middle of the nineteenth century popular lectures on chemistry were the fashion in America. On December 10th, 1844, Horace Wells, a dentist of Hartford, Connecticut, U.S.A., attended such a lecture, during which an impure sample of nitrous oxide was passed round. One of the audience inhaled more than his fair share and, becoming very excited, injured his leg, but was entirely unaware of this fact. This so impressed Wells that he persuaded the lecturer, a Mr. Colton, to administer the gas to him on the next day and, whilst under its influence, another dentist, Mr. Rigg, successfully extracted a tooth. On recovering, Wells shouted: "A new era of tooth-pulling; I did not feel so much as the prick of a pin." But it is hard to believe that he would have submitted to the experiment had he been aware of Davy's work. However, we must give him credit for the courage of his convictions, for he immediately applied his discovery to his private practice, though in the end it was his undoing, for his subsequent public demonstration at the Boston Hospital was a complete failure and he was hissed off the platform, an event which led indirectly to his death, as, miserably depressed by his ignominious failure, he became insane and ended his life by opening his radial artery while seated in a bath, the while he inhaled ether, that euthanasia be assured.

With the discovery of ether, nitrous oxide fell into disuse until Colton, who had not forgotten his experience with Wells, revived it in 1863, and by 1867 he was able to publish a series of some 20,000 successful cases, thus establishing beyond all possible doubt the utility of the gas. In 1867 nitrous oxide was demonstrated at what is now the Royal Dental Hospital, and a committee of English dentists was formed to investigate the claims of the Americans. Their report read before the Royal Dental Society fully confirmed these claims, and nitrous oxide was, in spite of strong opposition on the part of certain members of the medical profession, firmly established as a safe and efficient anæsthetic for dental surgery.

In 1879 a Frenchman, Paul Bert, published the results of his experiments with mixtures of nitrous oxide and oxygen, thus making possible the prolonged use of nitrous oxide anæsthesia.

Before tracing the progress of nitrous oxide I had better go back a few years and give you an idea of what was happening in other fields.

As long ago as 1795 ether was known and prescribed in medicine as an inhalant for the relief of spasmodic chest complaints. In 1818 an unknown contributor to the *American Journal of Science and Arts* wrote: "When ether vapour is inhaled it produces an effect comparable to nitrous oxide." Some say that it was Faraday, but, whoever it was, he was a far-seeing man for the anæsthetic properties of that gas were not then described.

In Periera's *Materia Medica*, published in 1839, it was stated that ether, when inhaled to any extent, produced a state of stupefaction; this fact was well recognised by the medical students of that time, for they were in the habit of inhaling ether to while away the time during lectures.

In 1846 Morton, who had been in partnership with Wells, dissolved the partnership. Before he left, however, he asked Wells where he could obtain a supply of nitrous oxide; he was referred to Jackson, a chemist, of Boston, who advised that ether be tried as it was more easily obtainable; this Morton agreed to do. He tried it on himself. In his own words this is what happened: "I procured the ether from Burnett's, and, taking the tube and flask, shut myself up in my room, seated in the operating chair and inhaling. I found the ether so strong that it partially suffocated me, but produced a decided effect. I then saturated my handkerchief and inhaled from that. I looked at my watch and soon lost consciousness. As I recovered I felt a numbness in my limbs and a sensation like a nightmare, and would have given the world for someone to come and rouse me. I thought for the moment I should die in that state, and that the world would only pity or ridicule my folly. At length I felt a slight tingling of the blood in the end of my third finger, and made an effort to touch it with my thumb, but without success. At a second effort I touched it, but there seemed to be no sensation. I gradually raised my arm and pinched my thigh, but I could see that sensation was imperfect. I attempted to rise from my chair, but fell back. Gradually I regained power over my limbs and full consciousness. I immediately looked at my watch, and found that I had been unconscious for between seven and eight minutes."

On September 30th, 1846, a patient of Morton's, Eben Frost, came to have a tooth pulled. He begged Morton to mesmerise him as he feared the pain. Morton seized his opportunity and persuaded him to let him use ether. The experiment was a perfect success. Morton demonstrated his discovery at that same hospital where Wells had staged such a ghastly fiasco two years previously. This time there was no hitch, and Warren immediately adopted the anæsthetic for general use in the hospital.[1]

In England, Robinson, a dentist, practising in Gower Street, used ether for the first time on December 19th, 1846. It is probable that Clover and Lister, who were then students at University College Hospital, were present at that occasion.[2]

In 1847, Snow adopted the use of ether at St. George's, and on January 19th of that year Simpson began to use ether in his obstetric practice, but he was not entirely satisfied with the results, so he asked Waldie, the master of the Apothecaries' Hall at Liverpool, if he could suggest a substitute. Waldie advised him to try chloroform, which he knew was an impurity in chloric ether. After some delay, Simpson obtained a sample which he produced one evening after dinner in the company of George Keith and Matthew Duncan. They all inhaled the drug, and the result, one gathers, was rather dramatic; at any rate, soon afterwards he published his world-famous " notice of a new anæsthetic agent."

In England chloroform rapidly displaced ether as a routine anæsthetic, though in America ether still remained the more favoured drug.

On January 28th, 1848, the first death from chloroform occurred. This was soon followed by others, which lead Snow to investigate the matter, and eventually to affirm that the maximum safe concentration for chloroform vapour was 2 per cent. This view was also held by Paul Bert.

A number of committees was set up to investigate the matter, notably the Glasgow Committee of 1879 and the Hyderabad Commission of 1889, the former condemning the drug, whilst the latter upheld it—differences that may well be explained by the variation in climate. However, various attempts were made to reduce the percentage of chloroform given by using it in mixtures of alcohol and ether or ether alone, and by the introduction of dosimetric chloroform inhalers, with which are associated the names of Snow, Clover and Vernon Harcourt. This has been followed by careful researches by Gaskell, and, amongst others, Leonard Hill, who stated that he could prove statistically that if a thousand normal people were anæsthetised with chloroform, one would die.

In 1848 Heyfelder first used ethyl chloride as a general anæsthetic. Thus by the end of that year all the anæsthetic agents which are in common use to-day had been placed at the disposal of the surgeon. Since that time advances have been almost entirely in the apparatus rather than in the agents. Before considering these advances, I should like to trace briefly the trend of events in local and regional methods of anæsthesia.

The early attempts by nerve compression and freezing have already been mentioned, but the first real advance was the invention of the ether spray by Sir Benjamin Ward Richardson in 1866. Excellent results were obtained by this method, though ethyl chloride has largely replaced it.

Although Rynd invented the hypodermic syringe in 1845, all attempts at producing local analgesia with its aid were unavailing until 1884, when Karl Koller tried cocaine. This stimulated a large amount of experimental work, and it was not long before it was realised that cocaine was an extremely toxic substance. This led Braun to add adrenalin to the solution, and he proved conclusively that it both lessened its toxic effects and prolonged the anæsthetic effect of a single injection.

In 1905 novocaine was introduced, and, as it was much less toxic, its use rapidly became universal. In the same year Bier showed that it could be used intradurally, but it was not until the following year when Barker introduced stovaine that this method was generally recognised.

Many synthetic cocaine derivatives have been tried from time to time, but they have no definite advantage over novocaine. In 1920, however, percaine, a quinoline derivative, was introduced. This remarkable drug is extremely toxic, but is effective in such high dilutions that the actual amount of the drug used cannot do much harm. Further, the anæsthesia that it produces is more lasting than that of the cocaine derivatives.

To return to general anæsthesia. The earlier methods consisted of presenting the vapour to the patient by holding a mask or cloth soaked in ether or chloroform in front of the patient's nose and mouth. The first advance occurred in 1876, when Clover devised his ether inhaler and described the gas-ether sequence. Then came numerous chloroform inhalers such as those of Snow and Vernon Harcourt, all of which attempted to present the vapour in definite concentrations with a maximum of 2 per cent. The next step was the production of machines whereby the anæsthetic was delivered to the patient in vapour form by blowing air or oxygen through the liquid in a bottle. The best of this type was that devised by Sir Francis Shipway[3]. This at once opened up new fields, as the vapour could be given through a tube placed in the nose or mouth, thus giving the surgeon much greater freedom. Then with the onset of the Great War intratracheal intubation, a method worked out by Tuffier and Kuhn in 1897, became commonplace, and Sir Francis Shipway described his ether drip machine for intratracheal insufflation. This was a great advance, as it prevented the inhalation of blood during operations on the mouth.[4]

But inhalation was not the only method to be tried. Thus, in 1913 Gwathmey was giving ether in olive oil per rectum, and he followed this up by introducing the conception of basal anæsthetics—his synergic method, as he called it. He used paraldehyde per rectum, followed by ether inhalations, a method that is still used to-day.

With the introduction of avertin by Eicholtz in 1926 the use of basal anæsthesia was extended,

and with the production of the present-day gas machines it rapidly became the practice to follow avertin by gas and oxygen either alone or with ether. There are two types of such machines, the continuous flow and the intermittent. Finally, in 1923, Magill introduced his nasal tubes for intrachacheal gas and oxygen. His method differed from the previous ones in that the anæsthetic was not blown in under pressure, but was sucked in by the patient's inspiratory efforts, the entrance of foreign material into the air passages being prevented by accurately packing off the pharynx. This method gives the surgeon complete freedom in the mouth, and is the method of choice for the longer dental operations, an added advantage being the rapidity with which the patient regains the cough reflex.

Yet another route to be tried was the intravenous. This was suggested by Burkhard and put on a practical basis by Goyane, who pointed out that ether was soluble in saline to the extent of about 10 per cent., and it was not long before F. S. Rood had devised an apparatus for the continuous intravenous exhibition of ether. But the method is too difficult and has no great advantages to recommend it. Other drugs which have been tried by this route are hedonal and alcohol, but it was not until the chemists interested themselves in the barbiturates that any further progress was made in this field. First came nembutal, followed in 1927 by pernocton and, quite recently, evipan sodium; the last-named is so vastly superior both in effectiveness and safety that it has quite superseded its predecessors. It has its limitations, however. Though attempts have been made to popularise its use for prolonged anæsthesia, using an apparatus similar to Rood's ether drip, I cannot believe that they are any more justifiable than was the use of ether intravenously. Evipan has a definite place in dental surgery, where a short anæsthetic is required, giving the surgeon complete freedom in the mouth, provided it is remembered that a free airway is just as important with this drug as it is with other anæsthetic agents. It is also extremely useful for any short surgical procedure, and it is frequently used as an induction of general anæsthesia followed by ether or gas and oxygen.

No paper on this subject would be complete without mentioning recent advances, for so many changes have been made in the last few years.

It has long been known that acetylene was an efficient anæsthetic for animals, but its smell and storage difficulties prevented its use in surgery. In the same category was ethylene, the anæsthetic properties of which are said to have been discovered by Simpson and investigated by Nunelly. But it was not until 1920 that the Americans, notably Luckhardt, Carter, Easson and Brown, among others, fully investigated the question; they also investigated the gases propylene and cyclopropane, all of which can be used on the human subject with comparative safety. They are, however, all highly inflammable, and it was not until the introduction of the closed circuit principle that their use was placed on a practical basis. The closed circuit principle depends on two factors, firstly, that the anæsthetic gases are expired unchanged, and secondly, that soda lime has the property of absorbing carbon dioxide from the air with which it comes in contact. The closed circuit machine, therefore, consists of a face-piece connected to a metal can containing the soda lime, beyond which is a rubber bag into which the patient breathes, and into which the anæsthetic gas and oxygen are admitted. Once the patient is anæsthetised, very little of the gas need be added, as he goes on breathing the same gas over and over again, but oxygen must be added in a steady stream throughout the procedure. The advantage of these gases over nitrous oxide is that they produce a more profound anæsthesia, and at the same time the patient's return to consciousness is almost as rapid as after gas itself; further, more oxygen can be used without the patient waking at an inopportune moment. But ethylene is so liable to cause explosions that its general use is not to be encouraged. Cyclopropane, on the other hand, has come to stay, as it produces an anæsthesia as profound as chloroform, and apparently has none of its dangers.

There remains but one method for me to mention, and that is the modern use of the oldest drugs of all, namely, opium and hyoscine. These drugs are frequently used, as pre-anæsthetic narcotics, especially when a spinal anæsthetic is to be administered, in which case one-third to two-thirds of a grain of omnopon with 1/150th to 1/100th gr. of hyoscine is the usual dose.

It is to Gauss that we owe the use of these drugs in obstetrics, the initial dose being similar to that given above, and an additional 1/450th gr. of hyoscine being given when the patient shows signs of recovery.

And now, gentlemen, I think I have covered most of the ground, somewhat sketchily I am afraid, and I hope that I have not wearied you too much.

REFERENCES

1. H. J. Bigelow gives the date as October 16th, 1846. *Boston Medical and Surgical Journal*, Nov. 18th, 1846.
2. Cock. *University College Hospital Gazette*, Feb., 1911.
3. Shipway and Pembrey. *Lancet*, 1916, i, 70, 1087.
4. Shipway. *Lancet*, Aug. 5th, 1916.

Correspondence

The Wills Library

To the Editor of the GAZETTE

SIR,—I think it might be useful if you could publish the enclosed letter to the Hon. Wills Librarian and his reply, as they deal with matters of interest to many of those using the Library.

Yours, etc.,

MAURICE CAMPBELL.

The Wills Library.

Dear Sir,

The Medical School expends annually a considerable sum of money on the Library, and a large number of useful publications are available, both in the Wills and in the Departmental Libraries. For this reason it seems unfortunate that even more use cannot be made of these facilities.

Since certain alterations are about to be made to the Library, we would like to take this opportunity of making suggestions, which, if given effect, would certainly increase the usefulness of the Library, not only to students, but also to house officers and members of the staff.

1. *Lunch-time closing*

In view of the fact that there is now a Librarian and an Assistant Librarian we suggest that the Library should not be closed at all for the lunch period. The lunch period is often the only time available for house officers, clinicals and students to look up references in regard to their cases before the afternoon round, while members of the junior staff, with teaching and other routine duties, often in distant parts of the hospital, find this the most convenient time.

The lunch-time closing has now been reduced from the previous hour (from 1 to 2), but we think that the closing time, even of the shortest duration, should be avoided if possible.

2. *Closing during August*

The closing of the Library for the whole of August is apparently unnecessary, so far as "cleaning" is concerned. Could not the two Librarians take their holidays at different times, in order that it could remain open, at least as a Reference Library?

3. *The "Current Periodicals Table"*

There should be a table with *all* the current periodicals taken by the Library, which could be placed in view of the Librarian if necessary. It seems recently to have been considered advisable, owing to losses, to keep certain of the most important periodicals locked up, and for this reason the very important habit of "browsing" through the current numbers has been prevented. It is not to be thought that the losses are due to stealing, but rather to promiscuous borrowing and forgetfulness. This might be avoided by the use of large hard-backed carriers of conspicuous colour, in order that journals might not be removed more or less accidentally, and lost among a welter of other journals. A large table with central boxes is a more convenient way of keeping these current journals than the present lectern.

4. *A Library Telephone*

Could a telephone be installed in the Librarian's room? Much time is wasted going from distant parts of the Hospital to the Library, only to find that the volume required is out.

Should there be no house telephone numbers available, a national telephone extension would further enable the Librarian to communicate with the Royal Society of Medicine, etc., without absence from the Library. This telephone could be fitted with a "buzzer," which would not cause inconvenience to users of the Library.

5. *The List of Periodicals*

The Hon. Wills Librarian published in the hospital *Gazette* in 1935 a list of periodicals available in the Wills and Departmental Libraries, which has been of considerable value to the hospital. We suggest that this list should be revised and published periodically in the *Gazette*, perhaps in conjunction with an annual report of the Library.

(Many signatures were appended.)

Guy's Hospital, S.E.1.

Dear Sirs,

Your letter about possible changes in the Wills Library was not received in time for discussion at the last meeting of the Library Committee, but will be placed before them at their next meeting. In the meantime I would like to make a few comments on each suggestion:—

1. *Lunch-time closing.*—I have arranged that the Library shall not be closed during lunch-time, as a temporary measure. Whether this continues will depend partly on the use made of the Library between 1 and 2, but even more on whether the Assistant to the Librarian remains as a permanent appointment.

2. *Closing during August.*—This will be considered at the next meeting of the Library Committee. It, too, depends on the continuance of the Assistant to the Librarian, but, in addition, there is the question of cleaning to be considered and, perhaps more important, of a general stock-taking of all the books in the Library. This is always very difficult to carry out when the Library is in use.

3. *Current Periodicals Table.*—I have arranged that all current periodicals which are taken shall be available in the Library. The present Stand was introduced to save room, and has certain advantages over the large table with central boxes, but perhaps both can be used. The general principle of the Library Committee is, that they do not mind a few accidental losses so that the periodicals may be available in the most convenient way, but heavy losses might again necessitate reconsideration of this. Some hard covers of the type suggested will be introduced to see how far this helps to prevent the removal of current journals from the Library.

4. *A Library Telephone* is under consideration. There are disadvantages as well as the advantages mentioned.

5. *List of Periodicals.*—There is no difficulty about this being republished in the *Guy's Hospital Gazette* from time to time, and this will be done again in 1937.

Yours faithfully,

MAURICE CAMPBELL,
Hon. Librarian.

The Wills Library,
Guy's Hospital, S.E.1.

Overcrowding at O.P.'s

To the Editor of the GAZETTE

SIR,—We would like to draw to your attention a matter which is, we think, becoming very serious. We refer to the overcrowding, which is an invariable feature of Surgical Out-Patients.

It is now the rule to find between thirty and forty students in attendance every day in this department, and while we should be the last to suggest that that excellent system, whereby anyone may attend any general out-patient department at his choice, be discontinued, we do think that this system is, at present, defeating its own object in Surgical Out-Patients for the following reasons.

The number of those attending at present results in a throng, two or three deep, around the patient and surgeon, as a result of which the latter is frequently impeded in his work and is at an obvious disadvantage in demonstrating the case. The essence of attending Surgical Out-Patients lies in the careful examination of the patients, and if every student were to examine one patient only cursorily it would result in the patient being in the department for something like an hour, at the end of which time the satisfactory examination, for example, of the abdomen would in all probability be impossible, and both the patient and the administrative staff would be at the end of their patience.

As it is now, the examination of a patient can only be carried out by a small proportion of those present, and the duties of the nursing staff are considerably obstructed.

We would like to suggest, therefore, that some regulation such as the following be brought into force: That attendance at Surgical Out-Patients be limited, firstly, to ward clerks and dressers attached to the firm concerned, and secondly, to students within, say, three months of taking a surgical examination.

This, we feel, might have some effect, as it is noticeable that many people are present whose time might be spent to equal advantage in the pursuit of the particular appointment which they now hold, or in a department where the overcrowding is less noticeable.

Yours, etc.,

P. A. Gardiner.	D. Hankey.
A. L. Young.	A. D. Willis.
Richmond Edwards.	P. H. Denton.
J. Kilpatrick.	J. Colenbrander.
R. J. Simms.	G. James.
L. C. Thomson.	G. S. Wigley.
N. Burnand.	F. Walt.
G. L. Humphreys.	L. B. Blomfield.
S. Davidson.	H. D. de Marigny.
A. K. Borland.	J. R. Miles.
T. H. Steele-Perkins.	R. W. Stevenson.
A. Crook.	

Guy's Hospital,
S.E.1.

Guy's '89 Club

To the Editor of the GAZETTE

SIR,—The usual date for the Dinner of this Club is the second Wednesday in May. As this will be Coronation Day in 1937, I suggest the meeting be arranged for Wednesday, May 26th, and I should like a postcard from members to know if this date meets with their approval.

Yours, etc.,

GERALD S. HOVENDEN,
Hon. Secretary.

"Glebeholme,"
99, Church Road, S.W.13.

Nursing News

GUY'S HOSPITAL NURSES' LEAGUE SALE OF WORK, 7th NOVEMBER, 1936

Result of Sale up to 24th November, 1936

		£ s. d.	£ s. d.
Donations from Past and Present Nurses			35 11 0
Approximate Amounts made at each Stall :—			
Past Members—	Miscellaneous		32 12 0
Sisters—	Household Linen, Provisions, etc.		29 10 0
Staff Nurses—	Children's Stall		17 10 6
4th Year Nurses—	Toilet Requisites		17 0 0
3rd Year Nurses—	Arts, Crafts, Fancy Goods		22 3 6
2nd Year Nurses—	Sweets, Cakes, Fruit (including Raffles of "Lady" Cakes)		33 5 6
1st Year Nurses—	Christmas Novelties		21 9 6
	Teas		18 7 0
	Side-shows		7 0 0
	Entertainment		6 10 0
	Dance		13 12 6
	Sale of Goods before and after Sale, including part sale of Pencils		33 6 6
			£287 18 0
Deduct Expenses :—			
15 Gross Pencils		7 17 6	
Printing, Postage and Sundries		4 0 6	
			11 18 0
Nett Proceeds of Sale			£276 0 0

The sum of £140 has been allocated to the Guy's Hospital Appeal Fund, and the balance of £136, plus any further receipts, will be placed to the Cosmo Bonsor Memorial Scholarship Fund.

The Nursing Staff would like to thank all who supported their effort and helped to achieve this result.

Sport

Rugby

Guy's v. Rosslyn Park

ON Saturday, November 21st, Guy's visited the Old Deer Park, Richmond, and were defeated by 2 placed goals and 4 tries (22 points) to a placed goal (5 points).

The Hospital could not blame the forwards for such a heavy defeat, as they more than held their own, and with Nicholson hooking at his best they gave their outsides plenty of chances.

J. W. Lewis was given another opportunity at scrum half and had a much better game, but A. Baxter, who occupied the fly-half position for the first time this season, was overshadowed by the brilliance of R. B. Comyns, who has played consistently well for Surrey.

Van Steytler had an off day and could do nothing right, while Sanders at full-back was frequently caught in possession through poor positioning.

On the other hand the Park back division had a perfect understanding, and their movements were carried out like a smooth-running machine.

The first score came from a kick ahead by Garrett, who followed up and caught Sanders in possession. The ball went loose, and Anson crossed for an unconverted try.

Another movement started by Gladstone placed Anson in possession, and a pass to Craven left only the full-back to beat. Sanders just caught

him, but Craven's speed carried him over for a try, which Huxley failed to convert.

The Hospital retaliated, and Kark went very close with a penalty kick from the half-way line.

After the interval, Comyns kicked across for Anson to score between the posts, but again Huxley failed in his third effort to convert.

Then followed the best try of the match. Comyns was again responsible when he cut through magnificently, and passed to Anson, who scored behind the posts, but this time Cooper missed the kick at goal.

After the Park had dribbled the ball to the Hospital's 25, H. B. Smith managed to force his way over, and this time Cooper made no mistake with the kick.

A passing movement between Crawford and Dick followed and, after the latter had run through to the Park's 25, a scrum took place on their goal line, and Yerbury threw himself over for a try, which Kark converted.

In the closing minutes Guy's, in trying to clear their line, started a passing movement which ended in disaster, as Craven cut in from the wing, intercepted and crossed, for Cooper to add the goal points.

Team.—W. B. Sanders; J. P. Crawford, J. van A. Steytler, R. C. S. Dick (Capt.), J. L. G. Hartley; A. Baxter, J. W. Lewis; H. Crabb, E. S. Nicholson, M. R. Kark, J. R. D. Williams, A. Forbes, E. Fletcher, R. O. Yerbury, C. S. Darke.

Guy's v. London University

AT Motspur Park on Wednesday, November 25th, Guy's defeated London University by 2 placed goals and a try (13 points) to 2 tries (6 points).

This is the first occasion that the Hospital have succeeded against the University, and their win was well deserved. Both Nicholson and Wright were unable to turn out for Guy's, and three other changes were made in the side. At full-back a trial was given to H. A. Rowley, a freshman from Wyggeston Grammar, and D. P. Finnegan, of Epsom, partnered Williams in the second row of the pack.

In spite of the wretched conditions, there was much that was good in the play, at least so long as one could follow it, but light that was poor at the start became steadily worse, and the last quarter of an hour took place in semi-darkness.

Guy's attacked from the kick-off and, by means of forward rushes, soon had the University defending in their 25. Within five minutes the persistency of the Hospital was rewarded when a quick heel found R. C. S. Dick in possession, and his break through resulted in van Steytler scoring a try, which Kark converted.

The Hospital pack were playing a grand game, and they not only beat their opponents in the tight scrummages, but were far superior in the loose rushes. The whole side were backing up each other much better than in previous games, and both Dick and Steytler were at their best.

As the game proceeded the combination of the University pack improved, and eventually they more than held their own. However, Guy's continued to hold the upper hand, and on two or three occasions came within an ace of scoring.

The Hospital were pushed back gradually, but keen tackling kept the University out until R. M. S. Neave picked up thirty yards out, and, cutting inside, went right through for a try between the posts, but J. F. Milne missed an easy kick at goal.

Another spell of forward play followed, but it was close on half-time before Guy's added to their score. Dick and Steytler were the spear-head of the attack, and in a grand movement which started with Crawford, the ball travelled quickly across the line to Steytler, who sent a reverse pass to F. Walt, and the latter reaped the reward of good backing up to score under the posts, for Kark to add the goal points.

A great struggle followed after the interval, and the University forwards were giving their backs plenty of the ball, but their passing was uncertain and several good opportunities were missed.

Guy's carried out several fine movements, but the opposing defence was sound, and they only succeeded in getting through once, when Dick cut through at a great pace and made a lot of ground before sending A. J. Drew over for an unconverted try.

Near the end, London rallied and, following a loose rush, G. E. F. Goode burst through and touched down near the corner flag, for a try which Bettesworth just failed to convert.

Team.—H. A. Rowley; J. B. Crawford, R. C. S. Dick (Capt.), J. van A. Steytler, L. G. Morey; A. E. Baxter, W. J. Lewis; M. R. Kark, A. J. Drew, H. H. Crabb, D. P. Finnegan, J. R. E. Williams, P. J. Fletcher, R. O. Yerbury, F. Walt.

Association

Guy's v. Lancing Old Boys

ON November 21st, at Honor Oak Park, Guy's drew with Lancing Old Boys at the extraordinary score of 6 goals all.

Lancing Old Boys had most of the play in the first half, and after ten minutes a shot by their outside right was deflected into the net by Lee.

They continued to press hard, and their centre forward scored a second goal from ten yards out.

Guy's managed to take the ball towards the Old Boys' goal, and Dorr scored after beating four men. However, the Old Boys took the offensive again, and, after pressure on the left, scored their third goal. In spite of this, Guy's attacked, and a misunderstanding between the backs and goalkeeper enabled Dorr to score his second goal. Just before half-time the Lancing outside-right ran through the defence and made the score 4—2 against Guy's.

After the interval Guy's began to have more of the play. Drew took the ball to the Old Boys' penalty area and passed to Dorr, who scored with a fast shot.

Play was very even for a while, and then the opposing inside left scored from just inside the penalty area.

Now Guy's began definitely to play much better, and Dorr scored his fourth goal. After progress on the left, Jones scored with a cross-shot to equalise. A few minutes later Dorr gave Guy's the lead from ten yards out. However, a victory was not to be, as the Old Boys' inside left equalised in the last few minutes of the game.

Team.—A. D. Whitworth; R. C. Jackson, B. M. Heap; E. W. Wright, D. W. A. Drew, H. A. Lee; J. Jones, L. James, G. W. Dorr, G. C. Sprigings, E. Harvey.

Guy's v. Old Malvernians

GUY'S played the Old Malvernians at Honor Oak Park on November 28th, and the result was another draw—2 goals all.

Guy's played very strongly for the first twenty minutes, and were unlucky not to score several times. Both Dorr and Drew hit the crossbar, and several shots only just went outside the posts.

Subsequently the play became of a scrappy nature, and the Guy's forward play deteriorated. Nevertheless, Guy's kept the Old Boys in their own half most of the time. After a period of pressure on the right, Guy's secured a corner. Sprigings placed the ball into the goalkeeper's arms, but he dropped it into the goal when challenged by Dorr. No further scoring took place before half-time.

After half-time Guy's continued to press hard, but could not score, About fifteen minutes after the beginning of the second half the ball was put to the Old Boys' outside right, who took it down and scored in the top right-hand corner of the goal.

However, the ball was soon taken back to the other end, and both Dorr and Sprigings had good shots saved. From one clearance from the Old Boys' goal-mouth the ball went to their centre-forward, who was unmarked. He took the ball between the backs, who were lying square, and beat the goalkeeper with a low shot, to give the Old Boys the lead at 2—1.

Guy's soon attacked again, and about ten minutes from the end Dorr scored with a magnificent shot from twenty yards out, which just passed under the crossbar.

Although Guy's pressed hard for the winning goal, the game ended in a draw of two goals each.

Team.—A. D. Whitworth; R. C. Jackson, B. M. Heap; D. W. Bugg, D. W. A. Drew, H. A. Lee; J. Jones, L. James, G. W. Dorr, G. C. Sprigings, E. Harvey.

The Judo Club

THE Judo, or Jiu-Jitsu, Club is now in its second season. It meets in the Gym. on Fridays at 5.30, when instruction is given by a professional. The objects of the Club are twofold. First, the teaching of Jiu-Jitsu from a sport and exercise point of view. For this purpose it is hoped to arrange a few matches with other clubs. Secondly, as a form of self-defence which is most adaptable to any circumstances.

The instructor has had extensive experience of both branches and may be relied upon to teach his pupils how to look after themselves both on the mat and in a rough house.

To those who are unfamiliar with Jiu-Jitsu a word of explanation might be welcome. It is a form of wrestling, practised in Japan as a national sport, which makes use of throws and locks. A throw, as might be expected, is a manœuvre resulting in one's opponent falling smartly to the mat. It counts a point. A lock is the application of force, usually to a joint, in such a way that should that force be increased, dislocation or other damage would result. The loser, on the mat, gives the signal of defeat as soon as he feels he cannot escape, and again loses a point. The ruffian gets his *hors de combat*. It is thus possible to defeat one's opponent and hold him completely at one's mercy and yet do him no harm whatsoever.

When starting Jiu-Jitsu the beginner is first taught how to fall without hurting himself. The principle of the whole system lies in applying a moderate amount of strength where it will be most effective. To those who have tried it Jiu-Jitsu is one of the most fascinating sports in existence, and by translation means "the gentle art."

The Club is open to any member of the Clubs' Union, and all new members will be assured of a hearty welcome. They need have no fear that

they will be used as cannon fodder by the more expert. Such a thing does not occur in Jiu-Jitsu.

New members are needed. Further details may be obtained from C. M. Debenham, Dental Dept., or R. F. Parfitt, Surgical Wards.

Hockey

Guy's v. The Aldershot Command

GUY'S were expecting to do better than in previous years against Aldershot Command and they were not disappointed, for they were only beaten by 1 goal to nil after a very close game at Honor Oak Park on November 11th.

Considering the state of the weather, the ground was in excellent condition, for which Kirby is to be congratulated. But as the weather in the previous week had been unfit for publication, the ground still left something to be desired. The game itself was so hard-fought that it is difficult for one of the players to report on it.

Again one of the features of the game was the stamina shown by the Guy's team. They set the pace quite as much as the Command, and did not relax it throughout the game.

The whole team played well, but Leeming at centre-half was outstanding. There was no score in the first half, although both sides had some anxious moments.

After the interval the same standard was maintained, the play being, if anything, keener. Both sides were opening up the game as much as they could, so that the outside forwards were kept pretty busy. It looked as though it was going to be a goal-less draw, when a rather stronger breakaway than usual occurred and the Command inside-left just got in his shot from the edge of the circle before being tackled, to give them the winning goal.

Guy's replied strongly, so that the Command defence was severely tested, but the necessary goal was not forthcoming.

Result.—Guy's, 0; Aldershot Command, 1.

Team.—E. J. Needham; J. S. Astbury, T. C. Thorne; E. Smith, J. A. L. Leeming, A. C. Greene; B. M. Cox, E. B. Rowe, E. J. Martin, G. C. Bough, J. B. Franklin (Capt.).

Guy's v. R.N.C. Greenwich

THE eleven had a very close game with the Naval College on November 25th, losing to them by one goal to two at Honor Oak Park.

Both teams were almost at full strength, and the hockey was of quite a high standard. In the first half neither side had the advantage, and play alternated rapidly between the two 25's. The Guy's forwards were trying a new combination with Philips at centre-forward and Martin at inside-right; this resulted in a slight incoordination, which, however, they should soon overcome.

Franklin, as usual, was playing well and keenly. The R.N.C. forwards were very fast, and passed with an accuracy unfortunately not seen at Guy's. The backs at times had some anxious moments, but they were playing steadily and combining excellently. As a rule, their free-hits were really well placed.

The first half producing no score, both sides played the harder in the second, and it was again very encouraging to see that Guy's were almost as fit as their well-trained opponents. It required a goal against them, however, to rouse them to their full strength in attack, after which they pressed very hard, and it was surprising that about a quarter of an hour passed before Martin scored an equalising goal (1—1). But the side were still congratulating themselves when the R.N.C. scored the winning goal with a shot that Needham was unlucky not to save—and he will save them when he eliminates the small jump he makes before stopping most shots.

Result.—Guy's, 1; R.N.C., 2.

Team.—E. J. Needham; J. S. Astbury, T. C. Thorne; E. Smith, A. C. Greene, C. F. Wright; B. M. Cox, E. J. Martin, C. H. Phillips, G. C. Bough, J. B. Franklin (Capt.).

Guy's v. The Nore Command

THE team again showed encouraging form when they beat the Nore Command at Chatham by 5 goals to 1 on November 28th.

In the first few minutes the Command attacked strongly, and it was obvious that their forward line was a potentially dangerous combination, with the centre-forward as the chief source of anxiety. Guy's thus learnt a lesson early in the game—to mark their men keenly. So well did the backs and halves do this that they soon had the situation under control, and thereafter passing movements were conspicuous by their tendency to break down.

The forwards, too, considering they were strangers to one another, settled down very well, and it was most encouraging to see the three inside forwards each shoot a goal in quick succession after about twenty minutes' play. Half-time therefore came with a score of 3—0, which represented the run of the game fairly well.

After the interval the forwards returned to the attack, but the opposing backs were offering a more concerted resistance, so that it was some

time before Roberts scored his second goal (4—0). Then repeated attacks by the Command forwards, aided perhaps by the confidence of the Guy's backs, were rewarded by their one goal, a well-deserved one (4—1).

Astbury then added still more to the backs' performance by dribbling the ball right through the opposing side and scoring with a good shot from the edge of the circle, to make the final score 5—1.

Result.—Guy's, 5; The Nore Command, 1.

Team.—E. J. Needham; J. S. Astbury, T. C. Thorne; E. Smith, A. C. Greene, C. F. Wright (Capt.); B. M. Cox, K. R. D. Porter, E. J. Martin, D. G. E. Roberts, G. C. Bough.

Results.—Played, 13; won, 8; lost, 5. Goals for, 40; goals against, 20.

Squash Racquets

IN the first match of the season the Hospital played St. Mary's Hospital and lost by 2 matches to 3. The results were :—

M. A. Partridge beat E. Schneerson by three game to two.

A. D. Willis lost to P. R. May by two games to three.

B. W. P. Roberts lost to J. Mackintosh by one game to three.

J. A. L. Leeming beat R. Anstruther by three games to two.

I. G. Morey lost to W. Oakley by one game to three.

Hospital Information, etc.

Pass List

UNIVERSITY OF OXFORD.

The following Degrees have been conferred :—

DOCTOR OF MEDICINE.

D. W. Geidt.

MASTER OF SURGERY.

H. J. B. Atkins.

MASTER OF ARTS.

H. J. B. Atkins.

ROYAL COLLEGE OF SURGEONS.

L.D.S.

FINAL EXAMINATION.

November, 1936.

PART I.

Surgery.

R. G. Archer
W. R. C. Brown
J. L. Harrington
G. W. Lawrence
R. W. Marston
F. McCombie
G. C. J. Pearce
T. D. H. Ridsdale
D. B. Sedgwick
E. C. Sharp
J. E. Tudor

PART II.

Dental Surgery.

R. G. Archer
H. M. D. Archibald
R. J. Belcher
P. M. Calder
D. F. Denniss
S. W. Guilding
D. C. Howe
P. S. P. Jenkins
F. K. Johnson
H. J. Lewis
T. J. M. Lowry
J. C. Prosser-French
G. J. F. Rees
T. D. H. Ridsdale
J. C. Robertson
E. L. Sutton
D. Tudor-Williams
C. G. Wright
W. Wylde

Papers by Guy's Men

Guy's Hospital Reports, Vol. lxxxvi, Oct., 1936.

P. M. F. Bishop and A. C. Hampson. Studies in linical endocrinology, pp. 377-410.

W. H. Owles. The ætiology of intestinal carbohydrate dyspepsia, pp. 411-419.

E. T. Conybeare and F. A. Knott. Bacillary vaccines in asthma, p. 420.

C. Lambrinudi and T. T. Stamm. Letters of W. H. Trethowan, pp. 431-460.

R. Vaughan Payne. Ether convulsions, p. 461.

G. F. Gibberd. Angular pregnancy associated with incarceration of the placenta during the third stage of labour, pp. 476-487.

R. A. Ratcliff. The maintenance of the water balance during continuous intravenous infusion, pp. 488-496.

M. R. Kark and J. J. Davis. Observations on gastric secretion, pp. 497-504.

(This number completes Vol. lxxxvi, 1936.)

N. S. Plummer and J. E. M. Wigley. Purpura associated with bronchiectasis. *Proc. Roy. Soc. Med.*, 1936, xxx, 23, Sect. Dermat.

Martin A. Rushton and F. A. Walker. Unilateral secondary facial cleft with excess tooth and bone formation. *Ibid.*, 79, Sect. Odontol.

A. F. Hurst and F. A. Knott. British dysenteric infections. *Lancet*, 1936, i, 1197.

John A. Ryle. Prognosis and therapeutic principle. *Brit. Med. Jour.*, 1936, ii, 1067.

Changes of Address

R. G. Nethery, Heckington, Sleaford, Lincs. *Heckington* 213.

D. G. Wigginton, The Elms, High Road, Mottingham, S.E.9.

Births

WILKINSON.—On November 18th, 1936, to Catherine, wife of Frederick T. Wilkinson, 4, Overcliffe, Gravesend—a son.

WHITTEN.—On November 17th, 1936, at "Rydens," Downs Road, Epsom, to Kathleen (née Whitelaw), wife of M. G. Whitten, L.D.S. (Eng.)—a daughter.

EDS. { M.A.P. / A.G.W.H.

GUY'S HOSPITAL GAZETTE

A Journal of Medicine, Surgery, Dentistry and Hospital News.

PUBLISHED FORTNIGHTLY.

Volume L — *19th December* 1936 — *Number* 1263

RETROSPECT

" Papa has got into Guy's Hospital some Frenchmen, gentlemen and officers, who perhaps, you may recollect something of them having been confined on board a ship, and at last escaped by swimming ashore ; I forget the particulars. How melancholy to think that these gentlemen are most thankful for admittance to the Hospital ! But one of them, a very genteel young man, is almost eat up by the ' itch,' and as it is a very extraordinary complaint, and they have no other proper place to put him into, he is now in the same apartment with the lunatics."

Miss Way, for she was the authoress, afterwards wife of the first Lord Stanley of Alderley, and a daughter of Lewis Way, sometime President of the Hospital, shews, if ungrammatically, that even in the 1790's we at Guy's were men of resource.

This is almost the earliest glimpse of the Hospital that we get from reading its history as it is mirrored in the columns of its GAZETTE. The GAZETTE is now in its fiftieth year of publication, and that is our reason for offering to you this number, a jubilee number, though at this great moment in our national history, the word may seem to have strange associations.

A special number of the GAZETTE was produced in 1925, which formed a history of every aspect of our institution and its life ; that number was to celebrate the occasion of the Hospital bicentenary. This number, on the other hand, marks no such triumphant milestone, it is merely to record that we ourselves have reached our fiftieth birthday ; it is not even to record fifty years of uninterrupted publication, for that we have not had. But ours is the oldest Hospital journal of its kind in the world, and though it was not the first, yet our career, chequered though it has been, has outlasted any other that started before us. Seeing then that it is but our own birthday that we celebrate there has been no attempt to reproduce the scholarly, complete, and meticulously accurate historical survey of the life that was ours then and is ours by tradition still which Dr. Housden, the then editor, published in the Bicentenary number of 1925. But we have, in a smaller way, decided to celebrate our age, and we offer to our readers odd views of hospital life past and present, collected at random, and we have chosen them, we editorial butterflies, flitting in the GAZETTE garden alighting on one flower or another, as the colour pleased us.

So some of our articles are new, and some are not, and we have reproduced pictures which shew you the Hospital as it was, and some which shew it as it is. We have reprinted, by kind permission of their authors, some of the contributions to the Bicentenary number ; the history of the Physical Society, and the history of the GAZETTE, and these have been brought up to date. And we reproduce a few cartoons of years ago, and an odd story or two here and there, not as a record of the times, but as a stimulus to memories that might otherwise have been forgotten, to provoke a train of thought from the past.

The GAZETTE began in the height of the Victorian age, a golden time of commerce and prosperity ; when houses, like the Empire, were securely built ; when decoration was thought much of, though in a different way from now ; when the church held a sway that in our day it perhaps does not enjoy ; when lives were ordered and between-maids walked in the park with soldiers, the height of ambition to be an upper housemaid, and the army uniform was red.

Mr. Gladstone was a governor and Mr. Lushington the treasurer of Guy's. It was the treasurer who, in an age of social reform, improved the whole nursing system of the hospital. When Mr. Lushington was first appointed there were no trained night nurses—women were got in from the Borough—and ward sisters were an uneducated people ; all this he changed. It was

Mr. Gladstone who opened the College in 1890, " a convenient and a highly creditable building," he said, " of which London and this neighbourhood has no reason whatever to be ashamed," or so we report him in our number of March 29th, 1890.

And bicycling was at its height and a spin in the park an exercise for the elite and we read in 1877 of the enthusiastic formation of a bicycling club at Guy's with Dr. Moxon as the President. It was an institution that flourished indeed, with Sunday outings to Lee and what was then the Kentish country, and even inter-Hospital events, but it died like the rest of its time and we hear no more after 1899.

Those were the days of the *Guyoscope* (of which the tale is told in another article), which had many distinguished artists, and among them Mr. Stanley Cock, with whose work all good Public Housegoers must sooner or later become familiar, for he was the author of those old bar favourites, the drink and card party scenes of the eighteenth century called respectively, " The Connoisseurs " and " Trumped." Then, looking on, there came the Græco-Turkish war, to which, it is reported on May 8th, 1897, went a contingent from the hospital. It is on June 5th that we have sent from Greece, Mr. (now Wing Commander) Turner's first contribution to our columns and we read of his safe return in the issue of July 3rd. It is with great pleasure that we reproduce some of his reminiscences to-day. Glancing through the events of the time it was in June of 1897 that the extensions to the Medical School were opened by the Prince of Wales, afterwards King Edward the Seventh, who had succeeded Mr. Gladstone as our President. These extensions comprised that part of the Medical School to the west of what is now the Wills Library and included the Physiological Theatre and laboratories.

And it is now that we find the first mention of the famous, and to us legendary figure of Mrs. Keogh. " Auntie " finds a place in the memoirs of all old Guy's men and many times we have been asked if we know anything of the manner of her coming or her going. She died in Lydia Ward, of pneumonia, following an accident, in December, 1897.

It is just before Mrs. Keogh's death that the GAZETTE comments for the first time on the use of the new X-rays :

" The possibilities of the usefulness of the Röntgen Rays so hopefully suggested when the discovery was first made, are, unlike most suggestions, being increasingly realised day after day. It is now quite a routine practice on some firms to get every possible fracture skiagraphed, and to use the result in the ' setting ' of the same, to the great advantage, it is needless to say, of the patient and to the credit of the hospital. The possibility of photographing calculi in situ has also turned out to be no myth, as nearly a month ago now, an extraordinary case of renal calculus under Dr. Taylor was successfully diagnosed by the aid of the X-rays, and Mr. Fripp was able to remove the offending body with consummate ease, though failure had been the result until the aid of the new photography was called in."

On March 4th, 1899, we learn of the famous Dr. Savage* that he was asked to see a patient in Philip, and after having examined him, was, as usual, accompanied to the door by the House Physician.

" In a bed opposite there lay an old gentleman, an expert in matters alcoholic. After Dr. Savage's departure he remarked to Sister, ' Who was that old gentleman with the silk 'at who has been talking to No. 41 for no end of time and getting him to blow out matches and such-like games ? Dr. East was the only one as spotted 'ow drunk 'e was and 'e took 'im out of the ward '."

On January 20th, 1900, comes the first mention of the South African war, and there are contributions from Mr. (now Sir Francis) Fremantle, the famous cross country runner and former editor who, having gone out to South Africa, acted as war correspondent to the GAZETTE. Sir Francis is now the member for Hatfield and Chairman of the Parliamentary Medical Committee; he has been kind enough to find time to write to us for this issue. On February 17th, 1900, the late Sir Alfred (then Mr.) Fripp also went out to South Africa with his dressers, and there is record of a great send off from Waterloo where the railway officials only just prevented a major disturbance.

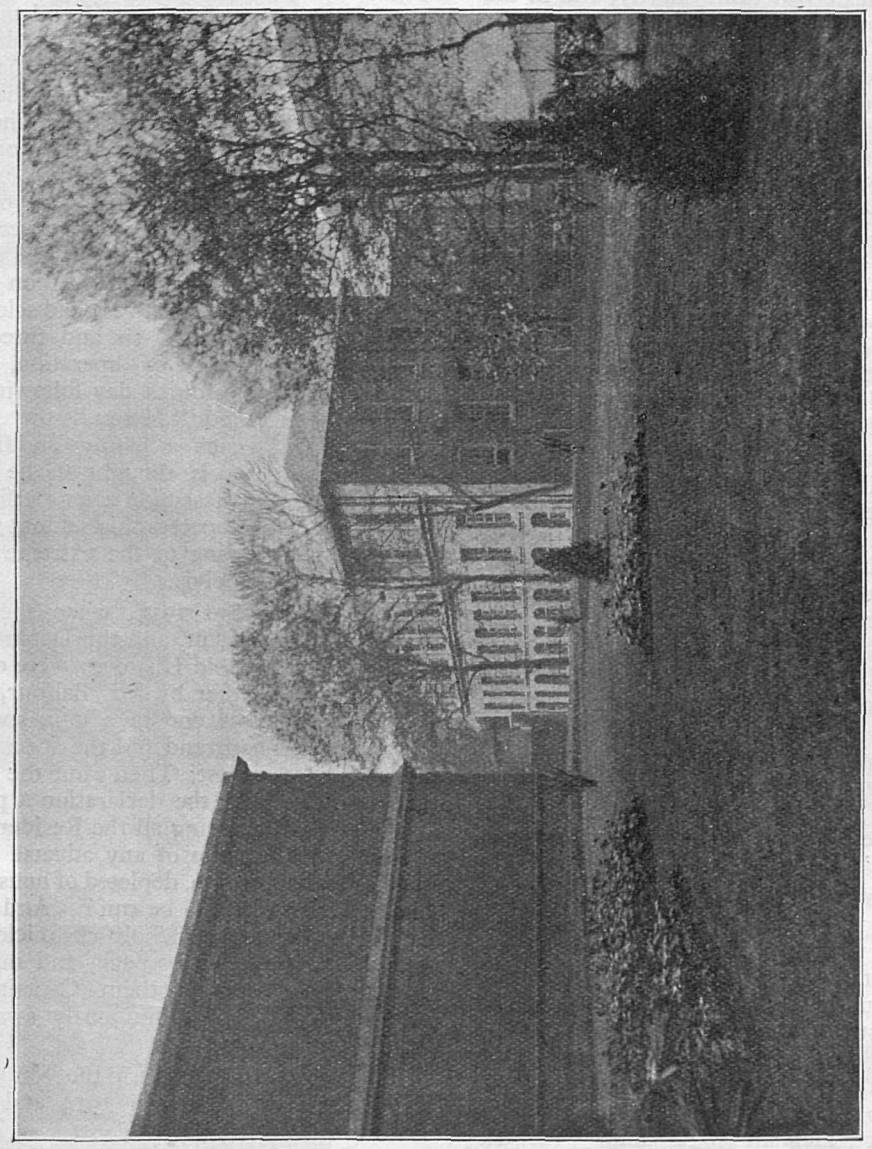
Motoring is now first mentioned.

" Considerable excitement was caused in the neighbourhood of Maze Pond last Wednesday by the appearance of a motor car outside the College gates. The crowd which springs suddenly from nowhere on any occasion of special interest was moved to rapturous applause when two externs appeared from the College with bag in hand, and with an obviously assumed air of nonchalance took their seats in the conveyance. Progress was somewhat impeded by the large number of children who found resting places on the gear cover and who resisted all efforts at dislodgment. Up to the time of writing the ultimate fate of these pioneers in locomotion has not yet reached us."

Alas, presumably this brave experiment was not a success, for at Guy's, always conservative, the externs now use bicycles.

And with the death of Queen Victoria on January 22nd, 1901, the GAZETTE came out in black and the great age was at an end. We had set behind us, it is true, such perils as St. Pancras, the North Berwick Hotel, overmantels, the bustle, brass trays and the Scottish baronial style, but we had lost more than that. We had passed from a time of much high thinking, nor such plain

*Later Sir George Savage, lecturer in insanity.



THE PARK. 1897.

(The building on the left is part of the old Medical School, and contained the Museum and Dissecting Room).

living either, a time of great sociological advance, of ingenuity in invention and progress in the scientific method, a time when minds were balanced and feeling was good, from such a golden age as in our day we may not see again.

The Edwardian era of generous extravagance started auspiciously enough. The cessation of the South African War came shortly, and in the GAZETTE the first mention of peace is on June 7th, 1902, and at once there was talk of a war memorial. As yet there was none of the unrest and uncertainty of later days, and life at the Hospital seems to have been placid enough. The mild intemperance of the time is reflected in the fact that in 1903 we read of the institution of a drunk or dying room, presumably for the study of the differential diagnosis of comatose conditions. In July the Wills Library was opened, and in the Autumn the Clubs' Union Council decided, for the first time, to apply for a grant for the erection of a stand at Honor Oak Park. This was duly built, and though we have no photographic record we shall try to shew you later on some of the changes that have taken place since the athletic ground was started.

It is not until now, surprisingly enough, that we find the first editorial appeal for contributions; the difficulties were much the same, the train of thought was similar, and then, as now, no doubt, few people realised how unco-operative were many of the members of the staff.

Apart from half a dozen cases of Typhus in Jamaica Road, there seems to have been little stimulus in the Hospital until the resurrection of the *Guyoscope* in 1906, but even this " lively little contemporary," as was our somewhat patronising designation, was not quite up to standard; we gave it a curt notice, and on May 19th, we are told that " like Chattertons love, ' it has gone to its deathbed.' "

In 1910 we were in black again, for His Majesty King Edward the Seventh had died and in 1912 the presage of the wider disquiet to come appears in the war correspondence of Mr. Ogilvie, who had gone unqualified to see what there was to be seen in the disturbances in Montenegro. At the same time we are given our first indication of the spread of the Guy's influence to the far East. The first two operations for Cæsarean section performed at Tientsin were done with the assistance of a Chinese nurse, trained at Guy's, who was matron at the Tientsin hospital. The first case was a remarkable one; the woman's pregnancy appeared perfectly normal, but on examination, our Chinese nurse found that the vaginal orifice was so small as barely to admit a lead pencil. It transpired that the woman had been attended during her first confinement by one of the " much dreaded old Chinese midwives, who used iron instruments made by the village blacksmith, and brought away the child in small pieces." The woman had apparently been unconscious for several days and had had months of fever after this obstetric morcellement. Hence the pelvic condition, which was only discovered when labour was well advanced and our nurse, who was in charge of the case, realised that Cæsarean section offered the only hope of a successful outcome. So she enlisted the services of some American army doctors; these were refused by the relatives, but the woman and husband finally consenting, they performed the operation in deadly secrecy. The operation, although it lasted an hour, was completely successful and both mother and child survived. The second case was less successful on a subject with " general tuberculosis, very bad scloiosis and hip disease." A child of six and three-quarter pounds was delivered by operation, but the mother died on the fourth day following. The children were called " Hsi-sa," the first and second, which means a happy Buddha. The first of these cases is thought to be the first successful Cæsarean section ever performed in North China; the operation is seldom necessary in that country owing to the extreme rarity of deformities of the pelvis.

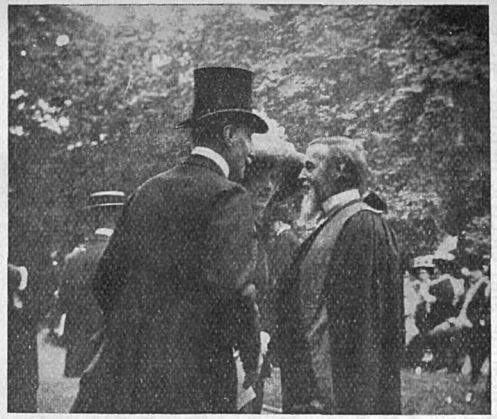
We come now to 1913, when the Clinical Chemistry Department, and the Departments of Pathology and Morbid Histology were opened in brilliant June weather by Mr. Balfour, and this episode marked the end of a long spell of rebuilding which had rendered the special departments complete at last. Then came the War, and in the number after the declaration a paragraph appears in Passim urging all the Residents to stay at their posts in spite of any adverse comment that might arise, or else, depleted of house officers, how could the Hospital be run? And the years that follow are a melancholy chronicle enough, with obituaries on every page, and many well-known names, among them Captain Harold Ackroyd, who was posthumously awarded the Victoria Cross.

There were civilian losses in the War years too; Sir Henry Howse died in 1914 and Dr. Pye Smith in the same year.

At the end of 1914, Mr. Thomas Bryant, the senior Consulting Surgeon, died at the age of eighty-six. Mr. Lucas, the consulting surgeon, died in the following year at the age of seventy, and his death was followed in the summer of 1916 by that of Sir James Goodhart. 1918 took toll of Mr. L. A. Dunn, then senior surgeon to the

Mr. ARBUTHNOT LANE

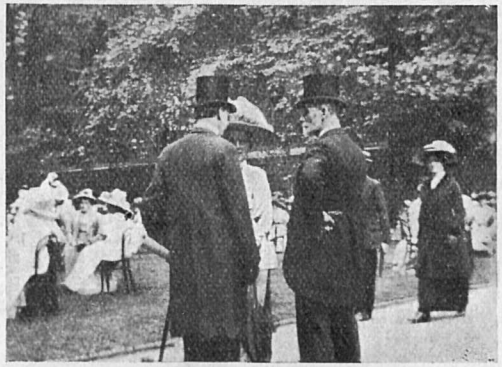
Dr. HALE WHITE



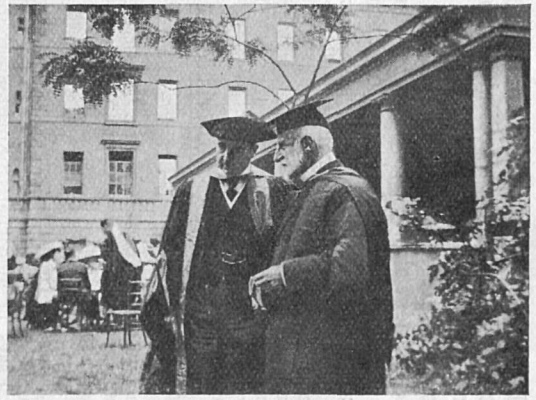
SIR JAS. GOODHART

THE MATRON

SIR JAS. GOODHART
and
Dr. L. E. SHAW



Mr. CHARTERS SYMONDS



Mr. CLEMENT LUCAS

(The ornamental colonnade from which the Bermondsey and Rotherhithe Ward was erected can be seen on the right.)

PRIZE DAY, 1911.

Hospital, and in 1917 had died Mr. Wells, the Clerk to the Dean of the Medical School and manager of the GAZETTE.

The melancholy of looking through the years is for the moment alleviated by a story which we are sure Dr. Barber will forgive us for reprinting.

Scene: John Ward. Two cases have just been brought back from the Examination Hall, two boy patients overhead discussing them.

"Where have they been?"

"To be examined, I've been three times. The last time they gave me six bob."

"Wish I could go."

"Oh, you ain't no 'case.' You ain't got a big stummick like me."

"Yus, I 'ave."

"But not with marks on it like mine. It was all pencil marks last week, now it's all over ink marks; you ain't interesting enough."

"Yus, I am."

"Well, what did Dr. Barber say when he came round and examined you?"

"Why, 'e says, I dunno what's the matter with the kid.''

On Armistice Day there were great scenes.

"The day's work began normally, but a certain feeling of restlessness grew more and more tense until eleven o'clock, when the maroons and sirens announced the tremendous fact that the war was over .... Instinctively, all who could, drifted towards the main entrance and gathered in the courtyard watching the flags appear from windows and roofs. Soon a charging mob came hurtling down the Colonnade, a ladder was thrust against the boarded-in statue of Thomas Guy, and a dozen stalwarts, mounting the scaffolding with crowbars and hatchets, proceeded amid the cheers of the rapidly increasing crowd, systematically to destroy the wooden structure which for nearly a year has protected our founder. In this way an immense quantity of timber was released, and a bonfire at once suggested itself. By this time the pioneers of destruction were strongly supported, and many were engaged in building up the fire, which became so fierce that very soon fire engines appeared from all directions, but the gates were barred to them, and one by one they withdrew amid the loud cheers of nurses, men, patients and the Borough, who now turned out in quite formidable numbers. One fireman was late off the mark, so his helmet was secured and placed, rather incongruously, on the head of Thomas Guy, who now was completely unshrouded."

And the milk churn came out and they burnt an effigy of the Kaiser before the Colonnade.

This passage perhaps explains the hitherto uncertain origin of the fire helmet which is to this day kept under glass in the Residents' Room. The firemen should have expected something of the sort, and that the particular one who was despoiled, whenever it was, was a microcephalic is a fact which we have, before now, established for ourselves.

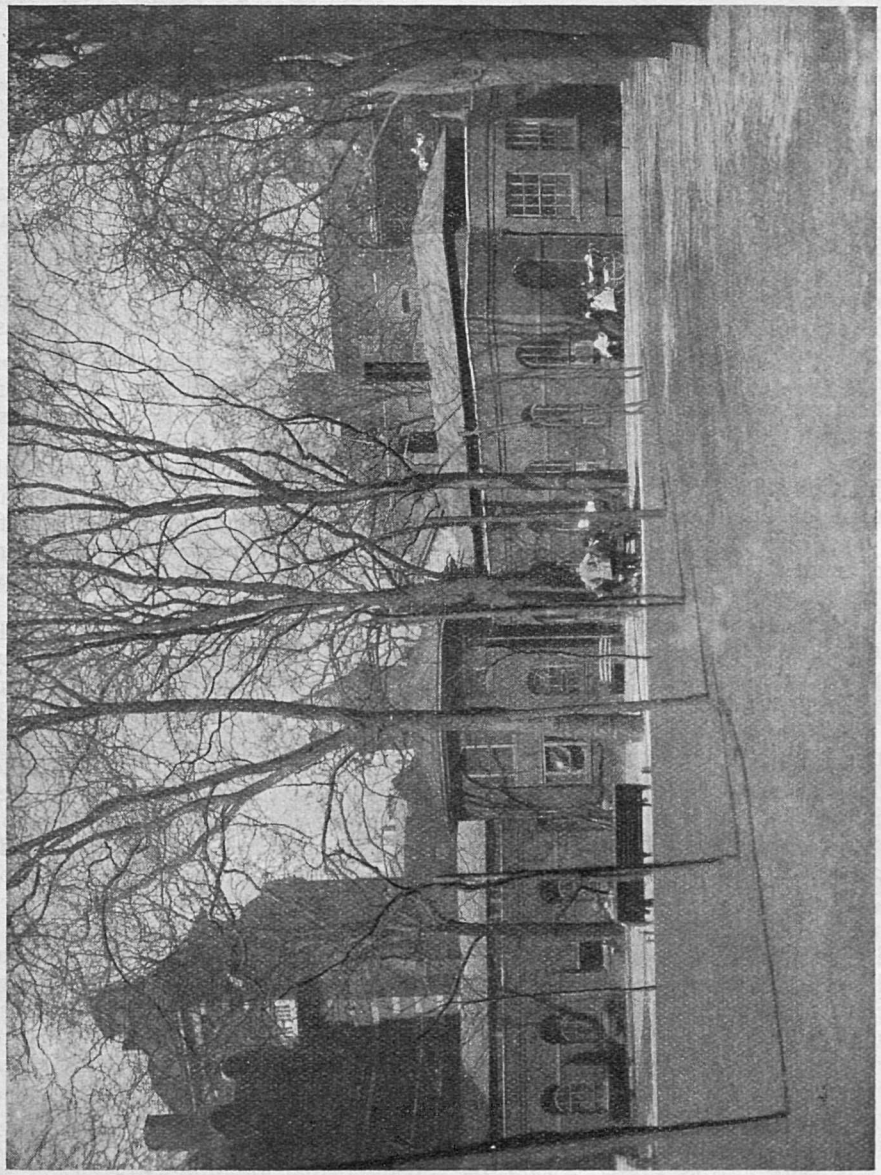
The next event of importance seems to have been the retirement of Sir Cooper Perry from his position as Superintendent of Hospital in January 1920. Enormous hospital reforms were carried out during Sir Cooper Perry's reign. The entire buildings were restored, with the substitution of steel girders for the old wooden beams, central heating and electric lighting were introduced, the theatres were increased from the single one of forty years ago to six in number. It was also due to his enterprise that telephones and lifts were installed, that the dental school, the laundry and the wardmaids' quarters were rebuilt, that the Stores and Works Department were re-organised. It was, we understand, also owing to Sir Cooper Perry that the Massage Department was built, that the rebuilding of the Out-patient Department and the Surgeries was undertaken, and that the Hospital was equipped with Electrical and X-ray departments. It is indeed an astonishing record, and Sir Cooper Perry's retirement would have been a staggering blow to the Hospital had we not been so fortunate in his successor.

In 1920 another loss was the death of Sir Frederick Turner.

It is now for the first time that the GAZETTE draws our attention to the question of student behaviour, and this is a problem which we have never quite understood. We have often been asked why it is that the rags of former days are no longer held, why the young men now lack the energy and enthusiasm that engendered the horse-play and hooliganism of post-war years, for it was then, it would appear, that the rags reached their greatest heights. We have wondered whether it was that the irruption into the universities and hospitals of a generation older than that for which their rules were fashioned, can have caused a general upset of the disciplinary system which took several years to right itself. Or, on the other hand, are we now in fact differently constituted from our post-war predecessors? It is a matter for speculation, but one feels that the difference between us is in some way a reflection of the times—some environmental difference which it is difficult immediately to define.

On the occasion of the Hospital winning the Inter-Hospital Rugby in 1920 the following appears in Passim:

"Reviewing the day of the Cup Tie as a whole, one of the outstanding features was the success of the Guy's rag. Many an old Guy's man was heard to comment on the striking costumes and excellent organisation of our crowd .... It was a pity therefore that the Bart's men were so unresponsive. In the first place, only a comparatively small number of them turned up, and it was fortunate for them that their strength was eked out by a number of students from the Royal Free Hospital. In the second place, one would have thought that these heroes of the University College and Asquith rags would have made at least one attempt on the Guy's Milk churn. Whether this seemly reticence was the outcome of a desire to spare the feelings of their lady friends from Gray's Inn Road, or whether it was the result of an edict from the Bartholomew's authorities requesting their men not to appear in fancy dress and forbidding them to indulge in a rag we do not know."



THE OLD CLINICAL WARDS (Demolished in 1919).

There then appears the rather strange remark :

" If the *latter* is the case, all we can say is that no compliment was paid thereby to His Majesty. The King's sporting proclivities are well known, and we are sure that he would be the last person in the world to resent a little harmless scrapping between two rival hospitals."

And we are amazed at our own pomposity in the following.

" One is at a loss to understand the position taken up by the women of the Royal Free Hospital on Thursday last. Of course, they were quite at liberty to turn up to the match on that date ; they were quite at liberty to display a banner with that strange device, ' Cheerio Bart's ' if they wished to. We are merely wondering what is the reason of this partizan spirit."

The Asquith affair (in which, in February or March of 1920, Mr. Asquith's car was mobbed on his setting out for the opening session of Parliament, with the result that the whole of the back was torn off, leaving Mr. and Mrs. Asquith and Lady Bonham Carter sitting *sub divo* and unprotected) was criticised in terms of the severest kind, on the ground that interference with so " eminent and worthy a man as Mr. Asquith," was an intolerable imposition on a private citizen ; but on the other hand the Pussyfoot Johnson affair was considered to be on the right side of the dividing line between " a rag " and " downright hooliganism," although, if our memory serves us well, that worthy and abstemious man actually lost an eye as the direct result of the performance. Another editorial of a similar kind appears two years later in reply to an attack in the Press on the Hospital behaviour during the Rugby final between Guy's and the London, in which the late Lord Knutsford seems to have sustained an accident to his hat.

Well, perhaps we are effete these days, even, it may be, priggish, but it is now possible to cross Waterloo Station on a cup final day without being assaulted, and we are not sure that that is any bad thing.

In 1921 the War Memorial Gate between the Park and Great Maze Pond was formally opened by the Duke of York, now King George VIth, and this memorial was followed by another when the Bermondsey and Rotherhithe Ward (the Children's Ward, subscribed for by the inhabitants of Bermondsey and Rotherhithe, in memory of those who fell in the War) was opened by Princess Victoria on February 17th, 1923. The babies, it was said in the Press, " were the happiest, cleanest, quietest little children," on which Passim remarks,

" Oh ! Haustus Chlor. Infantum, how much we owe to you."

The Bermondsey and Rotherhithe Ward stood at the end of the Park nearest to Newcomen Street from which it was separated by the Department for Venereal Diseases, and the building was made by bricking in the arches of an ornamental Colonnade which formerly stood there and which can be seen in an accompanying photograph. This Ward and the Venereal Diseases Department were removed to make room for Nuffield House during 1934. Later in 1923, in July, further extensions of the Medical School were opened by the Prince of Wales, our late King Edward VIIIth. These extensions comprised new dissecting and biology accommodation.

Dr. Lauriston Shaw, the famous Dean and Physician died in December of 1923, and his death was followed in the next year on September 14th by that of Mr. Jacobson, at an age of 77, one of the most celebrated of all Guy's men, the author of the famous textbook on operative surgery, and subject of innumerable stories.

A notable improvement to the Hospital came in 1926, with the extensions to the Dental School. At Guy's we claim to be the first Hospital in the country to have appointed a Dental Surgeon to our staff, and we were beyond doubt the first Hospital in the land to institute a course of lectures on Dental Surgery. The first Dental Surgeon appointed was Joseph Fox in 1799 ; he was followed by other great names in dental surgery, Thomas Bell, James Salter, and Henry Moon. But the real father of Dental Surgery at Guy's was Frederick Newland-Pedley, who was made an Assistant Dental Surgeon in 1885. Conservative treatment was Newland-Pedley's great contribution to dental teaching, for " he realised that to confine the work to the extraction of teeth was comparable to the restricting of ophthalmic surgery to the removal of eyeballs." He first of all had secured from the authorities a special room with the provision of two chairs, and himself defraying the cost of gas used, he ran a department at his own expense. The outpatient attendance increased rapidly, and the idea of fillings having attracted many who feared, perhaps, to lose their teeth forever, many requests from inside the Hospital as well as from without filled his time till there were not enough hours in the day. Mr. Moon, the dental surgeon who was Pedley's immediate senior, was leaving most of the work to his junior, and Newland-Pedley realised that for things to continue student help must be enlisted. So he went on holiday and, doubtless drawing inspiration from the walls, drafted a scheme for a Dental School while sitting in the Louvre. There was opposition of course, and even, perhaps, a little mild contempt of the idea, but the scheme went through. An

DEMOLITION OF BABY WARD, 1934.

THE WAR MEMORIAL ARCH, ERECTED 1921.

adequate number of men were enlisted on the staff in 1889, and on July 17th, 1893, Sir John Lubbock, afterwards Lord Avebury, opened the new buildings. It was the extension of these buildings which was formally opened in 1926 by the Right Hon. Francis Dyke Acland, P.C., on July 8th. The day was brilliant and the Garden Party of great magnificence. There were present many of the great, and among them, it is said in Passim

" The greater part of the Visiting Staff of the Hospital in the full glory of their Academic costumes. Wearing their peculiar headgears, they moved, like the stately warships of the Armada, over the tenuous grasses of the Park. As they proceeded from plot to plot (especially unenclosed for the occasion) their ample gowns billowed superbly around them in the sultry air, in folds of excruciating chromatic disharmony . . . .

. . . . It was indeed a gorgeous spectacle. Munificent teas were dispensed from three different fountain heads, each of which was sampled in rotation by the majority of those present. A gaudy tent shelter was provided for the Band, which played light music to those who were not occupied with tea, from four to six p.m. Official proceedings began punctually at 3 p.m., when a procession of dazzling brilliancy slowly emerged from the Court House, and headed for the Physiological Theatre. In the transit, the processors amiably conversed together, as if unconscious of the prodigious effect they were creating among their staggered onlookers."

And after speeches by many, and a " felicitous address " from Mr. Dyke Acland, they proceeded back to the Dental School, where the extensions were unlocked.

The extensions had been made possible by the destruction of an adjacent bacon factory on the North side of the original building, which provided additional ground space of 1,250 square feet, and there were also some internal rearrangements of the already existing building. The result was the provision of the Probationary Room on the ground floor, and above it on the first floor a laboratory " with working benches for 93 students," containing sets of wash basins and gas benches, together with two adjoining rooms equipped with sand, plaster and benches, electric lathes and furnaces. On the second floor of the bacon factory were constructed the Children's Department and the adjacent Demonstration and Clinical rooms. The internal rearrangements consisted in the provision of a cloak room on the site of what was previously the Public Health Department, a new X-ray room with new equipment and a developing room adjoining, and the rearrangement of the counters in the Conservation Room with addition of further chairs.

These, though perhaps the most important, were not, of course, the only extensions to the Dental School since its inception in 1893. In 1909 there had been considerable rebuilding of the interior and the out-patient department had been enlarged, and in 1910, on the building of new chemical laboratories, the old ones were taken over by the dental school, and two new storeys had been added to the west and north sides of the dental quadrangle.

So the extension of 1926 marked the end of a long period of expansion and reconstruction, and left the Hospital with a dental school as well equipped as any in the country.

In 1926 it was, that Dr. Hunt died, and the idea of the Hunt Memorial Library was conceived, now a room adjoining the electrocardiographic department, and containing books on cardiology and a drawing of Dr. Hunt by Sir William Rothenstein.

It was also the year of the general strike, owing to which, in May, the GAZETTE missed a number ; Mr. Eason refers to the activities of the students during the strike in his article in this number. 1926 is also a year of note for the GAZETTE in that there appears in it a contribution by Mayhew, the famous porter, and our companion ofttimes in the surgery. It is a spicy little article, redolent with the alarum and excursion atmosphere of the Surgery, and amusing in a capital way. It is Mayhew's contention that most of the strange things happen at night, when people who cannot sleep give freer play to the imagination. Mayhew has seen a man enter the Surgery at 3 a.m. clad in a shirt and an old straw hat. He had come from Tabard Street to complain of another lodger kicking him out of bed, and apparently in the course of a routine examination, he was found by the A.H.S. to have a fractured clavicle. On another occasion a man had stepped in clad only in a blanket. He had come from Blackfriars with D.T.'s. " I asked him if anyone had seen him during his journey, he said, yes, two men who had both run away from him ; he also met a policeman who asked where he was going. He told him up to Guy's, and the policeman said, you'd better get there quick, too." And there was a lady who habitually came up at 3 a.m. imagining that her heart would fall out if she didn't hold it in with a towel. She was always reassured by medicine, which would keep her heart in till 3 a.m. next day.

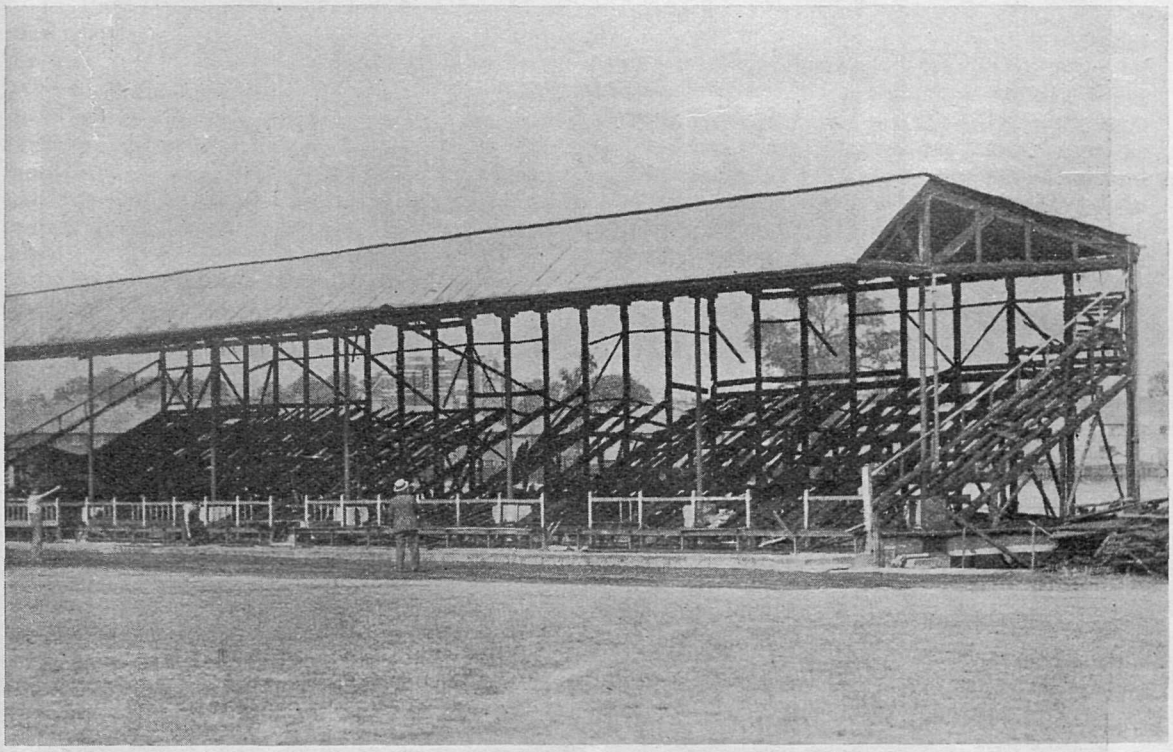
There was an event that summer which we would like very much to have witnessed, the Innominate Society's speed trials, held at Red Road Hill, not far from Bagshot. From a racy account in the GAZETTE, purporting to come from the offspring of a member of the Staff (perhaps a Wimp of ten years ago, or perhaps not) we find that many of the staff took part in some highly adventurous proceedings ; the

high spirits that prevailed can be gathered from a description of frolicsome behaviour during lunch by the roadside, when Dr. Conybeare, finding a back splint and a tennis ball in someone's sidecar, played cricket with the Dean and Dr. Ryffel. The result of the match is not given, but it is recorded that the Dean was bowled out by Dr. Ryffel. After lunch the first event was the competition, limited to members of the Society for the Ogilvie Cup, which seems to have consisted in a sort of " point to point " along half a mile of uneven cart track and back again to the starting post. The entering vehicles were a 2¾ h.p. Douglas cycle, a 3 h.p. A.B.C. cycle, an 8 h.p. Matchless combination, a 4¼ h.p. Sunbeam with a large sidecar, and finally a Morris Oxford two seater driven by Mr. Ogilvie, who won the event, but as the donor of the trophy, modestly refused to take it.

" Mr. Ogilvie was the next. He drove a Morris Oxford and Mrs. Ogilvie went with him. He went faster than anyone ; he seemed to have no respect at all for his springs or for Mrs. Ogilvie's hat. I'm sure she must have hit her head against the roof lots of times. Near the turn round bit they skidded on the sand and very nearly went over a quarry, but Mr. Ogilvie took no notice and drove back faster than he came with the cover of his dickey opening and shutting all the way."

The next event was a hill climb from a standing start with a stop between two tapes.

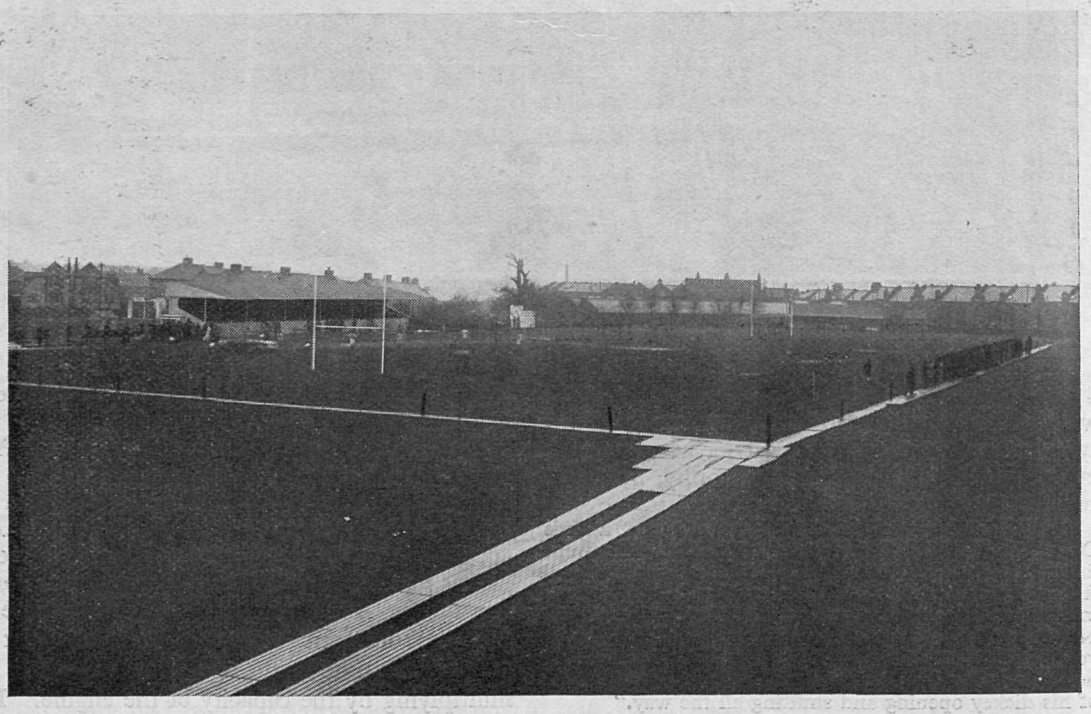
" Mr. Ogilvie was much more kind to Mrs. Ogilvie this time, and was followed by Dr. Symonds in a big Sunbeam car. I don't know if an engine has any synopses, but if it has, there was nothing wrong with his motor neurons. He didn't seem to be going dreadfully fast, but he was really. He overshot the tapes at the finish too and had to come back, but even then he only took 62 seconds. He would have been quite as fast as Mr. James if his inhibitory impulses had worked more quickly. Dr. Conybeare's Buick was the next. Dr. Conybeare is a member of the Innominate Society, so we had been hoping to see him in the competition along the cart track. He wouldn't try that, however ; I think Mr. Selby frightened him by bringing that back splint down there. However, he drove his Buick very fast up the hill, and he only took 60 seconds. I believe he enjoys going fast."



THE BURNT-OUT STAND, HONOR OAK PARK (After the Fire in August, 1935).

The next entrant was the Dean ; it was an A.C. even in those days. He " simply rushed up the hill," but his passenger made a mistake with the stop-watch. " The Dean was dreadfully disappointed, and he looked at the poor time-keeper just as he does when he is refusing to sign someone up for Anatomy." Awards were made on " figures of merit " which were arrived at by dividing the time by the weight of the vehicle and multiplying by the capacity of the engine. It is

THE NEW PAVILION, HONOR OAK PARK (Extension completed in 1935).



CLUBS UNION ATHLETIC GROUND (Showing the new Stand erected in 1936, and the extended ground).

with great pleasure that we read that Dr. Symonds was the winner of the open hill climb.

It appears that in the following year there was a determined attempt by the Editor to introduce Bridge to the GAZETTE columns. This seems to have met with no more success than most attempts to brighten up our parochial magazine. For we read in the number of February 12th :—

" There certainly has been no difficulty in settling which are the twelve best hands for the Competition, because twelve hands have not been sent in. There are only two conclusions to draw—either that readers find no difficulty in deciding their correct calls or that they do not want a competition."

In June, 1927, the total eclipse of the sun is described by Dr. Waterfield, whose contributions to this journal are all too infrequent, but for whose recovery from a recent illness we are profoundly thankful.

There followed quiet years for the GAZETTE, and then in 1930 we read of the death of Sir Alfred Fripp, the first of a series of Hospital losses which were to follow in succeeding years. In 1932, Mr. Steward retired from the Visiting Staff, and was followed in March of the next year by Mr. Fagge and in August by Professor Pembrey, who died in the following year. And in December 1933, great grief was caused by the death of Mr. Rowlands, then Senior Surgeon. Mr. Philip Turner, Mr. Rowlands' collaborator in the revision of Jacobson's famous text book, succeeded to the position of Senior Surgeon, but retired soon after, and in 1934, Dr. Witts left us for a Professorship at Bart's, and Professor Eyre, on whom, under the title "No Flowers," an epitaph had been written in the GAZETTE of 1929,

" Few to John Eyre's distinction have attained.
He was much cultivated—but unstained,"

retired from the Bacteriological Department.

During the hot summer, to protect the eyes from the dust from the demolition of the Bermondsey and Rotherhithe Ward and from the vulgar sight of workmen disinterring bones from the ancient plague pit which had formerly occupied that site, a high palisade stood across the western end of the Park. Lord Nuffield laid the foundation stone of the private block for which his generous gift of £75,000 was made, and soon, like the Phœnix, the present building rose from the dust and ashes of the departments for children and venereal diseases. The latter was quickly provided for by a new annexe between the Out-Patient Hall and Great Maze Pond. The former was not so fortunate. Temporarily lodged in a corner of Clinical, thus robbing that ward of a quarter of its beds, the children remained until a few weeks ago when they were removed to a part of Bright Ward, rendered obsolete by Lord Nuffield's munificent provision for the paying patient. Here it was that Dr. Housden found them on a recent visit, on which he remarks in an article in this issue.

Some time elapsed before Nuffield House, with its seventy beds, was finally opened by the Prince of Wales, now His Highness the Duke of Windsor, on December 10th, 1935, when a ceremony, with speeches, was held in the Out-Patient Hall owing to the inclemency of the winter weather, after which the doors were unlocked by a golden key. We noted that the chair on which His Royal Highness sat, the nearest approach to a throne that the Hospital can produce, was the same as that on which he sat (since the camera cannot lie) as long ago as the opening of the Medical School in 1923. Between the laying of the stone and the opening, the chief events that the *Gazette* records are the appointment of Mr. Eason as Vice-Chancellor of the University of London and the much-regretted departure of Dr. Ryle to assume his Professorship of Physic at Cambridge. There were in the year three notable deaths : Sir Maurice Craig had died in January and Miss Victoria Jones, the famous matron, had died in September at the great age of 98, to be followed, in November, with widespread regret, by Mr. Malleson, then Senior Dental Surgeon.

The New Year opened with Lord Nuffield as Treasurer, Mr. Whitbread having retired after many years of devoted service.

The rest of the year is fresh in our minds, too fresh for comment. We live in stirring times, and have survived a constitutional crisis which could not have been dreamed of fifty years ago.

In its small way, perhaps, the *Gazette* reflects changes of mind over this long time. One cannot but be struck by a difference between the older and the later editorials in particular. The *Passim's* of Victorian days had about them a geniality and good humour combined with a kind of Chauvinism not found in recent years. The unkind critic might have called them complacent, their unquestioning acceptance too uncritical. The columns constantly mention Hospital successes as being only what we can expect, and there is oft-times mention, as no term of invective, of the Guy's spirit. Gradually with the years it seems that the editorials have changed ; we speak of the " Good old Hospital " with more reserve ; and criticism, often of no uncertain kind, appears quite commonly. The change, one gathers, is partly due to a greater latitude allowed by the censor, and for this the editors at least should be grateful. For the task of writing is so much the

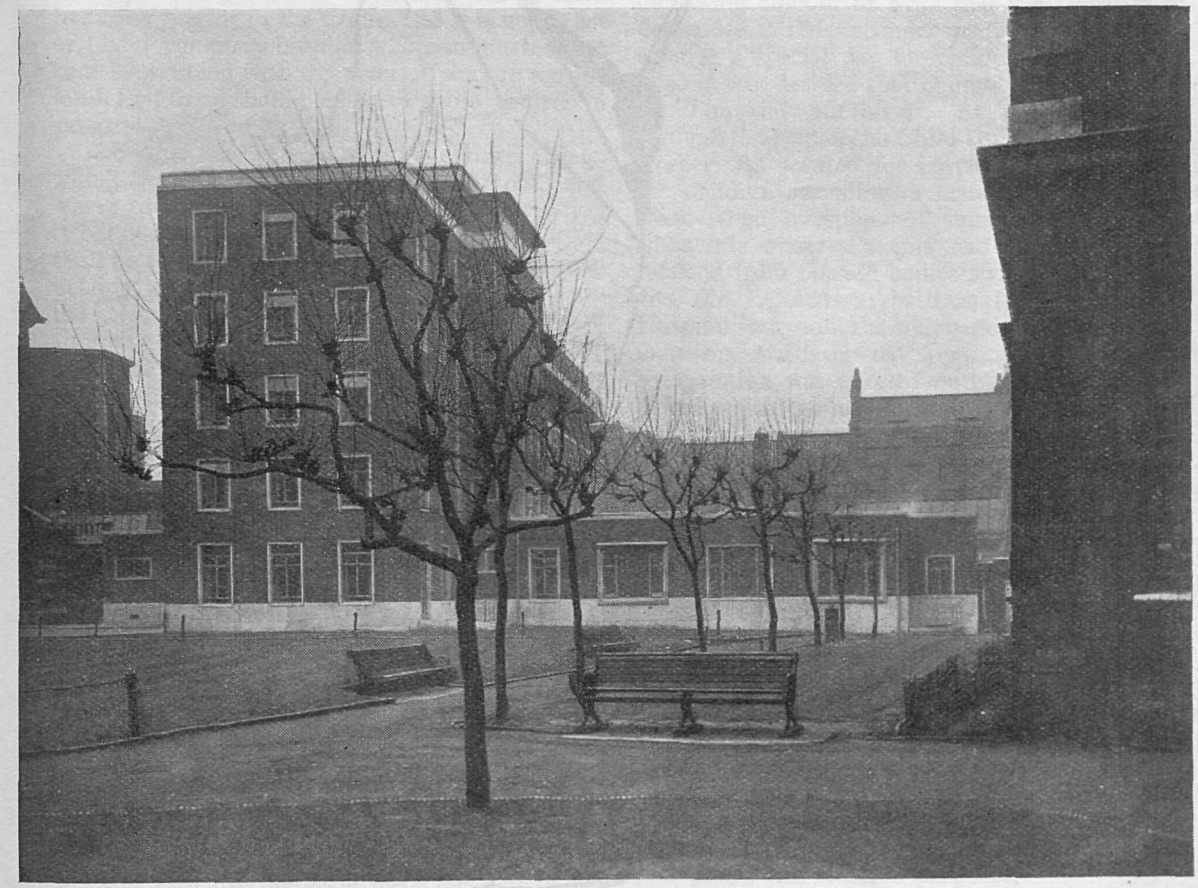
easier the more one is allowed to write about. But none the less, perhaps, we lack our predecessors' genial good temper.

We are conscious we have not mentioned much of the Hospital's development in this brief chronicle; we have left out the Electrical and X-Ray Departments, the opening of the Massage Department by the Duke of York in 1921, the installation in the same year of the Deep Therapy Department, arranged by Dr. Watt at his own expense, the beneficences of Sir Albert Levy and Lord Dulverton, and many other things, but this is no story of the Hospital—it is merely a record of things that we have chanced to read in the *Gazette* since 1887; some it may amuse, in some it may stir memories, we cannot hope for more.

List of Editors

1. T. Cattell Jones. Oct., 1872—Aug., 1873.
2. Henry Clarke. Oct., 1872—Oct., 1873.
3. Edward O. Giblin. Oct., 1872—April, 1874.
4. Frank T. Paul. Oct., 1873—June, 1874.
5. John Utting. April, 1874—Oct., 1874.
6. A. Piggott. June, 1874—Oct., 1874.
7. A. M. Turner. June, 1874—Oct., 1874.
8. I. H. Poland. June, 1874—Oct., 1874.
9. The Presidents of the Physical Society, Oct., 1874—July, 1880.
10. Edwin Alfred Starling. 1876.
11. W. J. Wilson. 1879.
12. R. E. Carrington. ?
13. C. H. Downes. ?—July, 1880.
    (Issue of *Gazette* suspended for 6½ years.)
14. William Leonnard Braddon. Jan., 1887—June, 1887.
15. Charles Joseph Whitby. June, 1887—Dec., 1887.
16. Guy Bellingham Smith. Jan., 1888—July, 1888.
17. Henry Johnstone Campbell. Aug., 1888—Dec., 1888.
18. A. S. Wohlmann. ? 1891.
19. G. Mackeson. ? 1891.
20. Frederick Gowland Hopkins. ?—June, 1894.
21. Harry James Spon. July, 1894—Aug., 1895.
22. Charles Herbert Fagge. Aug., 1895—April, 1896.
23. Francis Edward Fremantle. May, 1896—Sept., 1897.
24. F. E. Walker. Sept., 1897—July, 1898.
25. Herbert Lightfoot Eason. July, 1898—Dec., 1899.
26. Stanley Hodgson. Jan., 1900—Dec., 1900.
27. L. E. Stamm. Jan., 1901—March, 1901.
28. Frederick Goulburn Gibson. April, 1901—July, 1901.
29. Dudley George Greenfield. July, 1901—July, 1902.
30. Arthur Pearson. July, 1902—Oct., 1902.
31. James Marr Brydone. Oct., 1902—Oct., 1903.
32. Ray Edridge. Oct., 1903—May, 1905.
33. Frederick William Morton Palmer. June, 1905—Dec., 1905.
34. Hector Charles Cameron. Jan., 1906—Mar., 1906.
35. Christian Fred Louis Leipoldt. April, 1906—June, 1907.
36. Malcolm E. Ball. June, 1907—Jan., 1908.
37. Leopold Mandel. Jan., 1908—Nov., 1908.
38. Arthur Neville Cox. Dec., 1908—May, 1911.
39. Edward George Slesinger. June, 1911—Aug., 1912.
40. John Alfred Ryle. Aug., 1912—Jan., 1913.
41. Frederick Gilbert Laughton Scott. Jan., 1913—April, 1913.
42. Gerald Thomas Mallally. May, 1913—Oct., 1914.
43. William Edward Tanner. Oct., 1914—June, 1915.
44. G. N. Glover. July, 1915—Jan., 1916.
45. Frank Alexander Knott. Jan., 1916—Oct., 1916.
46. John Josias Conybeare. Nov., 1916—Oct., 1917.
47. Jack Joffé. Nov., 1917—June, 1918.
48. Geoffrey Barrow Dowling. Oct., 1917—July, 1919.
49. Gordon Parmiter Lindsay. Jan., 1919—July, 1919.
50. John Vernon Cannadine Braithwaite. July, 1919—Feb., 1920.
51. Montague Maizels. Feb., 1920—Dec., 1920.
52. Maurice Elgie Shaw. Jan., 1921—May, 1921.

53. Alfred Talbot Rogers. April, 1921—Dec., 1921.
54. John Alexander Currie. Jan., 1922—Dec., 1922.
55. Charles Hugh Christie Toussaint. Jan., 1923—April, 1924.
56. Leslie George Housden. 1924—1925.
57. Charles Freezer. 1925—1926.
58. Charles Paton Blacker. 1926.
59. Stephen Strong. 1926.
60. Charles Worthington. 1926—1927.
61. Philip Court. 1927—1928.
62. Geoffrey Housden. 1928—1929.
63. Oliver Plowright. 1929.
64. Ernest Conybeare. 1929—1930.
65. John Blaikley. 1930.
66. Peter Bishop. 1931.
67. Philip Reading. 1931—1932.
68. John Batchelor. 1932.
69. G. A. M. Lintott. 1932.
70. Edward Sharp. 1933.
71. Michael John F. McArdle. 1933.
72. Charles G. Baker. 1934.
73. Gavin Thurston. 1934—1935.
74. Donald King. 1935.
75. Patrick Clarkson. 1935—1936.
76. Maurice Partridge. 1935—1936.
77. Adrian Hill. 1936—



NUFFIELD HOUSE (Opened 1935)

The Senior Surgeon.
(Reprinted from the *Gazette*, August 24th, 1907.)

Recent Advances at Guy's

THIS would seem a fitting time to tell you, those of you who are not in close contact with the Hospital, a little of some of the ways in which the Hospital has made progress in recent years. We do not mean in ways such as the building of Nuffield House or the refitting with more modern equipment, so much as in the actual quality of the work which is being done, and the lines of thought along which, these days, minds are moving in the Hospital.

First of all, perhaps, one should mention the Asthma Clinic, where much work has been done on the elusive ætiology of this strange complaint. The Clinic was started several years ago, and is now under the direction of Dr. E. R. Boland. Great numbers of patients are seen and treated in a year, and indeed the case load is greater already than the administration of the Clinic can well bear. A number of papers have been published in the literature, which have had their origins in the Clinic, and it is good that at a large voluntary hospital where so much of the time is occupied with treatment of a more routine kind, that there should yet be valuable research in progress.

The same may be said of the Nephritis Clinic, which was lately started by Dr. Osman, and where much good work and careful investigation is being conducted. We are glad to say that we shall be able to publish an article from Dr. Osman dealing with the matter at some length early in the New Year, and for that reason, beyond apprising you of its existence, we will not dilate upon the subject.

Of even more recent origin is the Endocrine Clinic, an article upon which, by Dr. P. M. F. Bishop, is appended.

Then there is the exceedingly important development of the maternity and gynæcological accommodation, which has only just been effected; for a long time the department has carried on under unduly cramped conditions, but now the change has come, and a very good one it is. Mr. J. B. Blaikley has kindly written upon this subject, and his article will be found below.

Another innovation is the Fracture Clinic, which is the most recent of all the changes, and Mr. J. S. Batchelor, the Orthopædic Registrar, has given us a contribution in which you can read of the work which will be done.

Of these reforms, the Asthma Clinic and the Endocrine Clinic are inevitably associated in some measure with psychological medicine, but in the purely psychological field there has also been great development. Apart from the considerable reorganisation of the department of psychological medicine under the energetic direction of Dr. R. D. Gillespie, who succeeded Sir Maurice Craig in 1927, there has been founded a Clinic for Child Guidance.

The Child Guidance Clinic is of interest, not only for the sake of the work which it does, but because it is the only institution of its kind attached to a voluntary hospital. Its inception was rendered necessary owing to the very large number of children who were brought to Psychological Out-Patients and who had to wait, often for very long periods of time, in an atmosphere of adult misery and uncertainty which was thought to be most unsuitable. It was in 1930 that a full-time social worker was appointed by the Governors of the Hospital to work in the Psychological Department, in place of the former part-time worker who had been unable to deal with the greatly increasing amount of work that the Department demanded. This change made it possible to arrange a special day for children, and early in 1930 it was decided that children should be seen on Thursday afternoons. At the same time, through the help of the Child Guidance Council, a worker was secured for psychological testing of the children attending, a matter of necessity in work when questions of suitable vocations so frequently arise. Patients had previously been referred from outside bodies such as the L.C.C. and the I.C.A.A. as well as from within the Hospital, but now the numbers began further to increase; with the development of the Clinic, co-operation was effected both with the Courts, before which the juvenile delinquents were haled, and with numerous outside societies, such as labour exchanges and charitable organisations. It was interesting that the number of children referred from the Courts before sentence was passed, rather than after, showed a marked increase.

Matters were further facilitated when the new Out-Patient Departments were opened in 1932, allowing of far more commodious conditions, and in 1933 through the generosity of the late Sir Alfred Fripp and Lady Fripp a Fellowship in Child Psychology was endowed. This enabled the Fellow to work in co-operation both with the Children's Department and the Psychological Department, and great opportunities were thus opened for selection of particular cases for special therapeutic and research purposes.

So much had the Child Guidance Clinic continued to grow that, although at that time there

was a staff of ten fully trained psychologists, social workers and stenographers, apart from the group of psychiatrists, the work was still too great for the social service staff. Matters were helped, however, by a grant from the Asthma Research Council in 1934, on the strength of work which had been done upon the relation of psycho-therapy to asthma in 1933, and the part-time help of a further social worker and psychologist were secured. But the great boon came in 1935 through the generosity of the York Trust and of the Rockefeller Foundation, grants from whom enabled the Social Service staff further to be increased.

And the attendance at the Clinic has continued to grow, so that the premises that had seemed so ample in 1932 are now again inadequate. At the present time cases are being referred from Public Health Departments, local education authorities, public assistance committees, the Charity Organisation Society and mental welfare organisations, as well as from private persons, police courts, private doctors and other departments of the Hospital. It is also a fact that many cases are referred from other hospitals.

With this considerable organisation the Clinic is thus enabled to work in two directions, the one a social one along such lines as the study of home conditions, treatment of delinquents and co-operation with labour exchanges, and the other a psychological one. It is, perhaps, in this latter field that the work has been especially valuable; as a routine the children are submitted to intelligence tests, which may reveal some particular intellectual difficulty for which coaching can be specially provided, and this may lead to some form of research work, such as that of Miss Duguid into the problem of word blindness. Following on such testing, psycho-therapy is then given, and the psychiatrist is greatly assisted in his work by the organisation of a playroom, where the behaviour of the children may be observed, without interference, by the psychologist. Solitary children can meet and make friends with others, and it is a fact that they do, and observations can be made on personality and character, some of which have already led to valuable results, from the point of view of research in child psychology. This is done without the somewhat alarming associations of the behaviourist's " children's play-pen," where the reactions in earliest childhood can be tested to rattlesnakes or the sudden blowing of police-whistles. The play-room, occasionally riotous, is remarkably peaceful on the whole; it seems to constitute an inducement to attend, and there can be no doubt that it plays its part in the considerable amount of good work that is done at the Child Guidance Clinic, the only one attached to a voluntary hospital in London.

A statistical investigation into the results obtained at the Clinic was made by Mrs. D. H. Hardcastle in 1934, together with a comparison of our results with those at the Institute of Child Guidance in New York. The cases were grouped into " Improved " and " Much improved," " Unchanged " and " Worse."

The two series were strikingly similar, and in our case it was found that into the groups of " Improved " and " Much improved " together, there fell 76 per cent. of the series of representative cases.

The Endocrine Clinic

By Dr. Bishop (Editor, 1931)

DURING the latter part of 1933 and the beginning of 1934 Edward Crowther-Smith, who as R.O. to Mr. Chapple collected and treated a small series of cases of menstrual disorders with endocrine preparations. In February, 1934, he died, and since Dr. Hampson and I were already interested at that time in clinical endocrinology, these cases fell into our hands. In May, 1934, we established an unofficial clinic which was run in conjunction with Mr. Cook's out-patients, at which these and other cases of endocrine disturbance were investigated. In April, 1936, this clinic was recognised and approved by the Governors of the Hospital. In October, 1935, it was decided that research work in the Physiology Department should be concentrated on endocrine problems. In July, 1936, the Mastitis Clinic was formed in conjunction with the Endocrine Clinic under Mr. Atkins.

At the present moment, therefore, there is a team of workers engaged in endocrine research, both in the Medical School and in the Hospital.

In the Physiology Department the problems which are being investigated are as follows :—

1. The use of the Friedman test in the diagnosis of pregnancy, hydatidiform mole, chorion-epithelioma, intra-uterine death, threatened abortion, ectopic gestation and tumours of the testis.

2. The extraction and estimation of œstrin and gonadotropic hormone (prolan) from urine throughout normal menstrual cycles. This extremely laborious investigation is being undertaken mainly by Dr. Hans Ucko. Besides patience, it requires considerable biochemical skill, a large number of castrated mice and rats, and the preparation of a great many histological sections by our very able technical assistant, Mr. L. Westwood. Though this work may appear to us at times disproportionately laborious in comparison to its ultimate value, there can be no doubt as to its usefulness, and it is interesting to note that

work is being undertaken along similar lines, though on a much bigger scale, at the National Institute of Medical Research and at the Courtauld Institute of Biochemistry at the Middlesex Hospital. It would seem possible that in years to come the results of such investigations may provide the basis for routine hormone estimations of blood and urine in cases of endocrine disorders.

3. The nature of the melanophore-expanding factor present in urine, particularly during pregnancy. This investigation is being carried out by Mr. Spurrell and Mr. Raza, using the expansion of the melanophores of the frog's skin as the biological indicator.

4. The changes in the human vaginal smear during the course of the menstrual cycle, and as the result of the administration of œstrin. This problem is being investigated mainly by Mr. H. A. Hamilton. The results so far obtained suggest that this method may provide a valuable objective sign for determining the relative responsiveness of any particular patient to œstrin therapy.

Apart from the activities of the endocrine clinic tself, collaboration has been established between this clinic and other departments of the Hospital. The following activities are examples of such collaboration :—

1. Mr. V. E. Lloyd is investigating with us the effect of endocrine preparations on the sperm count in cases of aspermia, defective spermatogenesis and male sterility.

2. Mr. H. J. B. Atkins is collecting and classifying cases of mastodynia, mazoplasia and chronic mastitis, and we are attempting to determine which group of these cases, if any, is amenable to endocrine therapy.

3. Dr. Barber and the staff of the Dermatological Department are referring to us a selected group of cases which are reported to respond to hormone treatment, and we are investigating together the truth of such reports.

The cases investigated by the Endocrine Clinic itself are chiefly gynæcological, and without the constant help and advice of the staff of the Gynæcological Department the clinic could never have been established. The types of gynæcological cases seen in the clinic as are follows :—

1. Amenorrhœa, hypomenorrhœa and oligomenorrhœa. A general medical and a detailed menstrual history are taken. The patient undergoes a thorough medical examination, usually by Dr. Hampson, to exclude tuberculosis and other general causes of rmenorrhœa, as well as a special gynæcological examination, usually by a gynæcologist. Occasionally the patient is admitted to Queen for a diagnostic curettage and a determination of the length of the uterus. Endocrine therapy consists in the administration of œstrogenic and gonadotropic hormone extracts.

2. Menorrhagia. These cases undergo a similar examination and their menstrual history is very carefully recorded graphically. They are treated chiefly by corpus luteum and gonadotropic extracts.

3. Dysmenorrhœa. Every effort is made to exclude organic or psychological causes, and in most cases the effects of inert preparations are observed before hormone extracts are employed.

4. Habitual and threatened abortion. A series of cases of these conditions is being collected and treated with corpus luteum hormone.

5. Menopausal symptoms, both immediate, such as hot flushes, and remote, such as pruritus vulvæ, kraurosis, atrophic vaginitis and vaginal ulcers. The majority of these cases show marked improvement as the result of œstrin therapy.

Other cases of less obvious gynæcological interest are :—

6. Undescended testes. Endocrine therapy may be successful in these cases at any age, but we have gained the impression that the best results are obtained between the ages of nine and eleven. Hormone treatment is not always successful, and certain contra-indications, cosmetic and otherwise, have been brought to our notice, but we do feel that the operation of orchidopexy is seldom justified unless the effect of a course of injections of gonadotropic extracts has first been observed.

7. " Endocrine " obesity. This group of cases is interesting from the point of view of investigation and classification, though endocrine treatment is seldom of any benefit, a general hygienic and dietary regime still being the treatment of choice.

8. A miscellaneous group of rarer but very interesting conditions, such as hyper- and hypopituitary states, adreno-genital syndromes, pseudohermaphrodism, Addison's disease, etc.

Clinical endocrinology is still in its infancy, and is destined to suffer a long and difficult childhood before it reaches experienced maturity. But it can be made to grow up a respectable child, if its education is treated seriously, and strict discipline may serve to distinguish it from its more disreputable cousins organotherapy, opotherapy and pluriglandular therapy, which are nurtured by the advertisements of some of the more enterprising, if less honest, commercial houses. It is the object of such establishments as the Endocrine Clinic to guard the respectability of this infantile offspring of clinical medicine. We hope that by seeing patients at this clinic we may learn something about the subject of clinical endocrinology,

and since it is obvious that the more patients we see the greater is the possibility of our learning something, we shall always be grateful to those who are kind enough to refer cases to us. We believe that we have learnt a little already, but that has been made possible only by the help and co-operation of all the members of the Staff, both of the Hospital and of the Medical School, and last, but by no means least, by the literally valuable assistance which has been given us by certain of the more reputable commercial firms who have provided us with all the therapeutic material we have used during the past two and a half years, amounting to about £500 worth per annum.

Victoria Ward

By Mr. J. B. Blaikley (Editor, 1930)

UNTIL 1925, the Obstetric Department consisted of a large district and of only eight beds in what is now "Clinical"; in that year additional provision was made for in-patient treatment of obstetric cases, and the department moved to new accommodation on the first floor of Hunt's House. The new ward contained 21 beds and two labour rooms, and for ten years these 21 beds have done noble service, and it has been possible to admit all patients in which any difficulty was anticipated which necessitated the close observation obtained in hospital rather than that possible in their own homes, and in addition a number of primigravidæ with inadequate home conditions have also been admitted.

In the last few weeks the department has again been enlarged, this time in response to the needs of the Medical School. For several years now the district has been steadily shrinking, until from more than 3,000 cases per annum shortly after the war it has decreased to 1,381 in 1928, and only 765 in 1935; this fall in numbers is partly due to a decrease in the adult population of our district, partly to a decrease in the average size of individual families, and very largely to a marked preference for hospital treatment rather than a domiciliary service; this has meant that patients, rather than be delivered on the district by externs, have insisted on admission, and, when informed that Guy's has not the necessary accommodation, they have gone elsewhere. In addition, it has been necessary to refuse admission to many patients who live outside the area of Guy's district. It was felt that, in view of Guy's having a Medical School, it must continue to make provision for the teaching of obstetrics, and that it was therefore necessary to increase the number of obstetric beds so that the decrease in district cases would be partly compensated for by an increase of ward cases; accordingly in the last few weeks the department has again expanded, so that it now occupies the whole of what was formerly "Queen" and "Victoria," while "Queen," that is the gynæcological ward, has been transferred to "Astley Cooper" in the Surgical Block.

The Medical School is to be congratulated that this very necessary expansion in its interests has been made possible, for it has meant that the whole Staff of the Hospital has appreciated the necessity of keeping the school's needs to the fore, and it has meant that the general surgeons have for this reason been willing to relinquish one of the two male accident wards.

It seems that, while obstetrics is in danger of disappearing from certain other teaching hospitals, it will continue to flourish at Guy's, and with it the teaching of the subject should flourish also.

The new "Victoria" consists of 47 beds in two main wards, and, in addition, three beds for observation of those cases in which a potential infection is suspected. Between the two wards are built two large labour rooms, a small labour room for special cases, and a large babies' bath-room and nursery, also the kitchen and central hall. In the event of a patient developing sepsis, she is transferred to the isolation beds in Patience Ward. It is estimated that it will be possible to deliver 800 women each year in the Hospital, and so ensure an adequate number of cases for every student during his time as obstetric dresser.

* * *

It may be of interest to append the summarised results of the work of the department for the last nine years, that is since a detailed annual report has been prepared; the figures are those for patients normally living within the boundaries of Guy's district, delivered in the ward or at home; they do not include patients normally living outside this area:—

Year	*Total*	*Deaths*	*Mortality Rate per 1,000*	*Morbid Cases*	*Morbidity Rate per cent.*
1928 ..	1679	1	0.6	77	5.2
1929 ..	1575	4	2.6	59	3.8
1930 ..	1462	1	0.6	55	3.8
1931 ..	1442	4	2.8	55	3.8
1932 ..	1444	4	2.8	53	3.7
1933 ..	1234	3	2.4	34	2.8
1934 ..	1121	4	3.6	28	2.5
1935 ..	1089	Nil	Nil	15	1.4
1936 .. (to date)	1000 (approx.)	Nil	Nil	Not yet recorded.	
Total ..	12,046	21	1.75	376	3.1

The maternal mortality rate for the country fluctuates about 4.5 per thousand.

The Fracture Clinic

By Mr. J. S. Batchelor (Editor, 1932)

FOR the efficient treatment of fractures a properly organised Clinic is essential, and this is provided by the Fracture Clinic, which has recently been established in the Massage Department. At this Clinic all ambulatory fractures are dealt with, whilst in-patient fractures, on discharge from the wards, may attend for after-treatment and supervision.

Three sessions a week are held: on Mondays, Wednesdays and Fridays at 9.30 a.m.; on Mondays, cases are seen by Mr. Lambrinudi and the Orthopædic Registrar, and on Fridays by Mr. Ogilvie and a Surgical Registrar, whilst on Wednesdays the Registrars see urgent cases, which are then referred for further treatment to Mr. Lambrinudi or Mr. Ogilvie. Ward cases attend the Wednesday morning session, and are seen there by their respective Registrars.

The Clinic is adequately equipped for the treatment of all forms of ambulatory fracture. Reductions are performed under general or local anæsthesia, and all necessary plaster work carried out. Physio-therapy and after-treatment are facilitated by the establishment of the Clinic in the Massage Department itself, and in many recent fractures it has been found an advantage to put them immediately under the supervision of a masseuse for active exercising of unimmobilised joints. Careful case notes are kept and indexed, with the X-ray films, so that it will be possible to follow up series of cases without difficulty. The general management and staffing of the Clinic is supervised by Sister Massage, and it is largely due to her efforts that the Clinic is now running smoothly and efficiently.

The advantages provided by an organised Fracture Clinic, where large numbers of cases are seen, are many, but there are three which are outstanding. In the first place, continuity of treatment, that essential factor in the successful management of fractures, is assured; secondly, organised teaching for students, on a subject of considerable importance in general practice, is made possible; and lastly, but by no means least, progress in knowledge, from clinical observation and the follow-up of old cases, should result.

The History of "Guy's Hospital Gazette"

By Leslie George Housden (Editor, 1925)

Reprinted from the Bicentenary Number

IF it were necessary to divide them at all, which, except for the purpose of this article, it is not, men might be divided into two classes, the Pioneers and the Profiteers—the former originating at the cost of great hard labour those things which the latter selfishly enjoy. To ease their consciences it has become the habit of the profiteers to put up to the pioneers statues and other inadequate monuments, which are for ever afterwards reviled in their newspapers as blots upon the landscape, and, at the risk of spoiling the literary landscape of this commemorative number, this short history is written as a monument to those brave and far-seeing pioneers who, in the face both of great financial obstacles and lack of support, conceived and carried into execution the founding of the *Guy's Hospital Gazette*.

In many of its volumes, references are made to the *Gazette* as "the oldest Students' Journal in the World," but this is not strictly accurate. At the time of its foundation there was a monthly periodical appearing in London called the *London Students' Gazette*. This had been started in March, 1871, and in January, 1873, it was replaced by the *Students' Journal and Hospital Gazette*—but this magazine and the *Aberdeen Medical Student*, the first number of which was published a few weeks after our own *Gazette*, have long since disappeared. With these exceptions it seems that Guy's actually did produce the first students' gazette; certainly it was easily the first London hospital gazette, for the second to appear, which came from St. Thomas's Hospital, was not started until eighteen years later.

So it was something of an original venture when a second-year student, T. Cattell-Jones, on October 1st, 1872, brought out the first number of the *Guy's Hospital Gazette*, with the assistance of two colleagues, but little senior to himself, namely, Henry Clarke, a dental student, and Edward O. Giblin. It was at first entirely a private venture, and was issued weekly at two-pence a copy. The first number consisted of four pages only, but after that each number contained eight pages.

Cattell-Jones continued as Editor until July, 1873, in which year he qualified as a member of the Royal College of Surgeons, England, taking his L.R.C.P. diploma of Edinburgh the following year. The last time that his name appears in the medical Register is in that for the year 1878.

The object of the *Gazette* was pointed out in the opening paragraphs of the first number:—

"In launching this little sheet—which it is intended to publish weekly—we, the Editorial Committee, wish to draw the attention of Guy's men to what our present intentions are.

" There can be little doubt but that there has been a great want of some medium of communication between one class of Guy's men and another. Guy's Hospital is a large place, and it is quite impossible for any student to expect to be cognisant of all that takes place within its walls.

" It is, therefore, obvious that every student misses much that is interesting, and that a great many things take place in the Hospital from which he might derive useful information, but which it is impossible for him to see simply because he is not ubiquitous. It is, therefore, our intent to bring before such students an account of everything of nterest that passes at Guy's, so that he may, as it were, have his powers of observation multiplie.

" It is perhaps scarcely necessary to say that money-making is not an object, and all that the promoters of this little paper hope for is that sufficient patronage will be extended to it to enable it to pay its way.

" We earnestly hope that this little publication may have such a tendency as to enable us the better to work through the ensuing session, and with a unity and harmony that will cause us in after life—far away it may be from the scene of our present labours—to remember with pleasure the days of our studentship, when the helpful co-operation of our fellow workers made the time pass so pleasantly and profitably."

The first number was received with much enthusiasm, though not, perhaps, with a corresponding amount of practical support. That its arrival found favour even among the staff was made clear by Mr. Birkett, then senior surgeon of the Hospital and shortly to retire to the Consulting Staff. In the course of his introductory lecture on Surgery he said :—

" It is a thing quite new to me. I had never heard a suggestion made with regard to such a publication. But, from the perusal of No. 1, I think I ought to say that I believe it is a publication which may be attended with very great advantage. Although only a few hours elapsed since it was put into my hands, I have already considered that even we—members of the Staff, as lecturers and teachers—may find great advantage in that publication, by calling our attention to special cases, which are of more than usual interest. It is always, as you must know, very much sought after by the proprietors of the various medical journals that we should contribute to their pages all the information we can, presumably, of course, for the advantage of the profession, and I have always thought that these being, strictly speaking, matters for money-making, they ought to pay us for our time ; but I shall always be glad to assist, as far as lies in my power, the undertaking which has thus been inaugurated.

" No. 1 contains much information with regard to various points of interest, No. 2 may possibly contain more, and I cannot help stating it as my belief that I think the work may be very useful indeed. I might perhaps go further and say, although this may require a little subsequent consideration, that we might almost put down the heads of lectures which are likely to be delivered."

The enthusiasm of the Editorial Committee began at once to add improvements to the *Gazette*. In the second number they increased their pages from four to eight ; with the third number they began to issue the *Gazette* in a cover. But the income from the weekly sales would not allow them to continue this additional expense, and on February 3rd, 1873, Cattell-Jones caused the following announcement to appear :—

" Notice.—The Proprietors of *Guy's Hospital Gazette* regret to announce that the great increase in the expense, incurred by the addition of the cover, has not been met by a corresponding increase in the income. Wishing to avoid any deficit in the accounts, they have determined, for the present, to issue the paper without the cover."

In July of 1873 Cattell-Jones relinquished the Editorship, which was carried on for the next two months by Henry Clarke and E. O. Giblin, and at the end of that period Frank T. Paul replaced Clarke. These two worked together at their increasingly difficult task until the following April, when they co-opted John Utting to their staff. But the difficulty of collecting, editing and publishing the material for their weekly paper was growing, while at the same time their work at the Hospital was taking up more and more of their time, so that on May 30th, the following announcement was published :—

" In earnest desire to increase the value of our *Gazette*, it has been resolved that the Editorship should no longer rest in the hands of one person, but that the duties and responsibilities, which of late have considerably increased, should be shared by a small staff of students, each engaged in different stages of their curriculum. The gentlemen who have consented to give their time and attention to this are :—

Mr. J. Utting,
Mr. A. Piggott,
Mr. A. M. Turner,
Mr. I. H. Poland."

This new arrangement did not meet with any great success. At the time there was a great lack of enthusiasm pervading the Hospital, which was not shown so much in respect of work and examinations, as in the social and athletic sides of hospital life. As an example of this, it may be said that for the Hospital Athletic Sports of this

year, only 13 out of 400 students entered themselves for the various events, with the result that the Sports were cancelled, and, in the Inter-Hospitals Competition, only five Guy's men appeared to defend the athletic honour of the Hospital—all of whom were first-year men. On account of this absence of enthusiasm, the Editors decided not to issue the *Gazette* weekly during the summer vacation, a decision which they announced on July 25th as follows :—

" This *Gazette* will not appear every week during the vacation; it will be published and sent to subscribers as matters of interest require. We have no wish to conceal the reason for this spasmodic issue. It is due to the lukewarm support of the students and to the backwardness of some of our country subscribers. In the matter of its students' paper, as on every other occasion, Guy's is divided against itself."

Since the retirement of Cattell-Jones, the proprietorship of the *Gazette* had passed into the hands of Orlando Gibbs Brimmer, the printer, of 104, High Street, Borough, and on September 26th, 1874, the following announcement appeared, stating that the Editors in future would be supplied from among the Presidents of the Students' Physical Society :—

" On the 1st of October, the *Guy's Hospital Gazette* will appear under new management. Mr. Brimmer, the printer, who has for some time past been also the proprietor of the journal, has made over his interests in the paper to the Presidents of the Physical Society, by whom in future it will be conducted. Any profits that may arise from the circulation of the journal and from advertisements will be directed to the foundation of scholarships and prizes in connection with the Society of which the Editors are Presidents."

In the first number the new Editors stated the reason for the change :—

" The superintendence of the *Gazette* was, greatly to its detriment, frequently changing hands, and the practical difficulty of continuing a journal brought out by students, whose term at the Hospital was necessarily so uncertain, has at length become insuperable.

" If the *Gazette* is to be continued at all, it will clearly be carried on to better advantage by a perpetual society than by one or more ever-changing individuals.

" The advisability of reducing its present weekly issue to that of a fortnightly publication was fully entertained, but it was thought, on the whole, that the interest of the journal—especially to those of its readers living in the country—mainly depended upon its hospital news, the freshness of which would, in a fortnightly issue, be to a great extent lost."

This change of management was considered to be a most excellent one, and at the opening meeting of the Physical Society, the Honorary President, Mr. Edward Cock, Consulting Surgeon to the Hospital, said :—

" In speaking of the Physical Society, I am reminded of another institution, which is of later growth; I mean the *Guy's Hospital Gazette*. Nothing ever gave me more pleasure than to see the *Gazette* when it was started, and all praise and honour to those students who first undertook such a useful and excellent publication. Both the Physical Society and the *Guy's Hospital Gazette* are essentially students' institutions. I see that journal every week, I read it, and, if I do not find anything particularly new, I always find something that sets me thinking. It gives me a great advantage to be able to see at a glance all the cases that have been admitted into the Hospital during the week, so that a student, who is investigating a particular form of disease, can find at one glance where to seek for patients who may enlighten him upon the subject in which he takes at that time particular interest. The only thing that I was afraid of was that it might not last. It was taken up first by men of intelligence and talent, and it was well done, but I could not help thinking it might prove transitory. That those who spent their time on it could not stay here, and that they might transfer it to others who might not be so efficient and could not have had the experience they had. I was, however, last week very much delighted to find that all danger of this had been averted, as the Presidents of this Society had taken the journal into their own hands. Therefore there can be no fear for the future, and there can be no doubt that it will be conducted in the most efficient manner it possibly can be."

At the same time, two other changes took place regarding the management of the *Gazette* —the Hospital accountant, M. H. Williams, took over the duties of business manager, and the staff began to make voluntary donations towards the expense of production. Mr. Williams performed most valuable services in forwarding the interests of the *Gazette* until he relinquished his post in October, 1875, and it was decided that his good services should be recognised by some presentation whenever the *Gazette* funds should allow of it being made. This happy financial condition was not reached until two years later, when Mr. Williams was presented with a set of Dickens' Works, bound in half-calf, in acknowledging which present he wrote :—

" You must please convey to the Presidents of

the Society my hearty thanks for their extremely handsome gift. It will be valued by me no less for the kind feelings which have prompted the Presidents thus to remember me than as a pleasing and substantial measure of the success to which the *Gazette* must now have attained."

Up to May, 1875, the *Gazette* contained a large number of printer's errors, and in this month the printing passed into the hands of Alfred E. Cooper, of 19, Coleman Street, E.C., of which it was said :—

" One of the most important results of these new arrangements is the earlier issue of our periodical, and we can now give our country subscribers an equal footing with those in London, by providing all with the *Gazette* on the day of publication."

Certainly the change of printers produced a more carefully finished *Gazette*, the print being from now on clearer, and the misprints fewer, although transposed and omitted letters were still very frequent.

Cooper, however, only printed the *Gazette* for six months, when its production passed into the hands of W. Drewitt, of 43, Borough High Street, the price per copy being raised to 3*d*. At the same time the issue of the weekly *Gazette* neared its end, the last number appearing on December 18th, 1875, after a sequence of just over three years.

The *Gazette's* Hon. Secretary at this time was Mr. R. Clement Lucas, who displayed great interest and unremitting energy in seeking to increase its prosperity, and it was he who was directly responsible for its improvements.

What was its financial condition at this time is not very certain, but, whatever it was, it seems to have aroused a flattering interest in contemporary newspapers, and in April, 1876, the following recognition of one of them appeared :—

" We have heartily to return thanks to our contemporary *The Times and Gazette* for their good advice. We are at a loss to understand how they have enlightened themselves as to the state of our exchequer. We assure our critic, however, that, before we are ruined, we will give up the *Gazette*, but that, thanks to our subscribers, the prospect of this seems remote enough."

With the quick succession of short-time Editors and the blessings of the Physical Society, the *Gazette* seemed in a fair way to become perpetual, but in 1880, at the time of the nursing disputes, C. H. Downes, the Editor, took up sides rather vigorously for the staff against the Governors, with the result that in July of that year the *Gazette* was suspended, this suspension being due, as was reported in later *Gazettes*, rather to an " excess of zeal " than to any want of vitality.

THE NEW SERIES, 1887

After its suspension, no *Gazettes* were issued for six and a half years, but towards the end of that period the idea of re-establishing it became more and more popular, until in November, 1886, the Governors gave their permission for it, provided that a member of the Staff acted as censor and prevented any repetition of discussions similar to that which led to the suspension.

A meeting of the Physical Society was held, with Dr. R. Carrington in the Chair, and it was decided that a New Series should be edited by the Presidents of the Physical Society—Dr. Carrington undertaking the duties of censor.

This series was once more issued fortnightly, except during August and September, when it appeared once a month, and the average number of pages was fourteen. The printers were Messrs. Ash & Co., who have undertaken that work ever since. It was with the first number of this series that " Passim " was begun, and sometimes it was couched in very ponderous language. For instance, in begging to be allowed to smoke at the meetings of the Physical Society, the Editor wrote :—

" Many more men would come if they knew they could, during the lugubrious delivery of a concatenation of commonplaces, which must inevitably occur at times in societies like the present, solace themselves thus solanaceously."

Again, in giving his reason for the Preface to the opening number, he says :—

" Can anyone show a reason why this pert progeny should precede its progenitor ? A calm consideration leads us to the conclusion, indeed, that, rightly regarded, the *Book is its own Preface* (or, to avoid confusion, the book may be termed the *Preface to the Prologue*, or, the *Prologue to the Preamble*). A more real, and, we hesitate to say it, a baser reason for this besetting barbarity is, we fear, to be found in the unscrupulous proclivities of the Common or ' Garden ' Editor, who, mistaking his ponderous excogitations for the airy imaginations of fantastic genius, hangs the electro-plated bauble of his glittering lucubrations, like the fiery lamp of an unqualified practitioner, to the front of the *Gazette*, before the astonished gaze of his deluded readers ! "

Similar collections of polysyllabic words did not appear very often, and, fortunately for the *Gazette*, soon disappeared entirely.

The *Gazette* was now issued in a wrapper, and in November of its first year of re-publication had reached a circulation of nearly 400. In order

to increase interest in it, a Prize Competition was instituted, a guinea being offered each fortnight to the writer of the best article on some clinical or scientific subject (the choice of such subjects being left to the individual candidates), provided always that sufficient merit was attained by the competitors on each occasion and that there were at least three entries.

As has always been the case with *Gazette* competitions, the response was very poor, only two articles having been submitted by the end of the first month. On December 10th another innovation appeared in the form of the first illustration, it being of a lamp invented by Mr. George Carpenter for use in laryngoscopic and ophthalmoscopic work.

During this first year of the reorganised *Gazette* it gradually became clear that the Committee system was not practicable. In the "Prospect and Retrospect" of the last number of that year, the Editor wrote :—

"We have learned that a journal such as this cannot be successfully run by a committee, however able and willing its component individuals, and however numerous. In fact, it is the very numbers which are fatal—the old adage is as appropriate as usual, and as undeniable. In an early number was published an imposing list of those who had 'kindly consented' to be nominated to the staff of this paper. Some of these gentlemen have been most energetic on our behalf and our steadiest supporters; others, it must be confessed, have done little or nothing to assist us. We read there one name at least, the representative of which is not even a subscriber to the *Gazette*, much less a regular contributor! Others there be, although subscribers and committeemen from the beginning, whose contributions to these pages are measured precisely by the length of their own patronymics, as these appear for the first (and last) time in the list we have referred to. So much for the Committee system. It has been imperceptibly replaced by a far better one, the now pretty generally recognised conception that all Guy's men, past and present, are—or, rather, should be—*ipso facto* members of our staff and possible contributors to our columns."

From January, 1888, the *Gazette* went ahead smoothly, making continual progress. In January 1st, the first portrait was published, that of Dr. Carrington, while in February the first cartoon appeared. In the May number of the *South African Gazette* reference was made to the *Guy's Hospital Gazette*, and one of its poems was reproduced.

In the next year, 1889, with Mr. C. H. Wells as the *Gazette* Manager, a position that he held until January, 1916, an attempt was made to increase the circulation, and 2,500 copies of the number for January 5th were printed, and sent to all old and present Guy's men. The subscription for the *Gazette* at this time was 6*s.* 6*d.* a year, without postage, and 3*d.* per copy to nurses. In the summer, a two months' holiday was taken, there being no numbers issued between July 20th and September 21st.

In the next year a special double number of twenty-four pages was published, on the occasion of the opening of the new Students' College by Mr. Gladstone, and 20,000 copies were published at 6*d.* a copy to everybody, including regular subscribers. In connection with this, two prizes were offered, one of one guinea for the best poem in honour of the occasion, and the other of two guineas for the most popular list of thirty books, essential to the College Library. The popularity was judged by taking the census of opinion of all the competitors, and the following is a list of the books most frequently mentioned by them, in order of popularity :—

1. Shakespeare's Works.
2. Darwin's Origin of Species.
3. The Pickwick Papers.
4. Gibbon's Roman Empire.
5. Carlyle's French Revolution.
6. Tennyson's Poems.
7. Vanity Fair.
8. Darwin's Descent of Man.
9. Motley's Dutch Republic.
10. Westward Ho!
11. Milton's Poems.
12. Byron's Poems.
13. Last Days of Pompeii.
14. David Copperfield.
15. Ivanhoe.
16. Macaulay's Essays.
17. Spencer's Sociology.
18. Adam Bede.
19. Voyage in the Beagle.
20. Through the Dark Continent.
21. Boswell's Life of Johnson.
22. Green's Short History of the English People.
23. Macaulay's History of England.
24. Grote's Greece.
25. Bacon's Essays.
26. Ruskin's Stones of Venice.
27. Sartor Resartus.
28. Mill on the Floss.
29. Jane Eyre.
30. Scott's Poems.

The special number contained many illustrations of the College, including one of the dining room with its many diners and obsequious waiters.

In this and the preceding year, excellent pathological illustrations began to appear from time to time.

In 1892, Volume VI of the new series, the *Gazette* was permanently increased to twenty-four pages each number, and both "Passim" and an Editorial were included, while during the next year the average number was thirty-two pages, and illustrations became more frequent.

On September 23rd of that year, 1893, the *Gazette* celebrated its coming of age, and in a special number the Editor wrote :—

"We *have* been useful, and we *have* paid our way. The former claim is to a large extent self-evident, from the fact of our continued existence. With regard to the latter, we may be permitted to boast that in this year of grace wherein we reach our majority, we have been for the first time appealed to as a financial power in the Medical School, and have been allowed to finance the residents in the matter of a piano (security and interest being satisfactory, mark you !)."

A year later, the first "Special Students' Number," a *Gazette* of forty pages, was published, and, included in it, was the first photograph of an athletic team, that of the Association Football Club. In this number the constitution of the editorial staff is described as follows :—

"The *Guy's Hospital Gazette* is the journal of the Pupils' Physical Society, and is conducted by a Committee of publication under the chairmanship of T. H. Targett, M.S. A student member of the Committee is elected by them to act as sole and responsible Editor during such time as the Committee may please. . . . The first number was 'launched' on October 1st, 1872, and the *Gazette* is thus entering on its twenty-third year of existence. It was the first students' journal ever published in this country, and, as far as can be ascertained, is the oldest in the world."

In addition, the Editor announced that a column of Nursing news would appear in each number, but his promise came to nothing, as, except for two rather uninteresting lists of names in the two October numbers, no further "News" appeared until the last week in December, and thereafter only the shortest paragraphs appeared from time to time.

A much more successful innovation was the provision of a pathological column. In April, 1893, the *Gazette* undertook a scheme for the description of pathological specimens in its columns. This column, "From the *Gazette's* Special Pathologist," by a steady increase in length, fully justified the claims made for it. Indeed, its success paved the way for the more ambitious undertaking that has already made a name for itself as the Clinical Research Association.

With the Christmas number in 1894, a presentation plate was presented, showing "our well-known Founder, about to sanction plans for the establishment of this Institution."

In the next year, 1895, the great Public Appeal was made for the Sustentation Fund, which, so far as the *Gazette* was concerned, culminated on June 10th, 1896, in a Special Festival Number, edited by C. H. Fagge. This number, issued in an appropriate cover, contained thirty-two pages and nine illustrations. After a short Editorial, it contained a sketch of the history of the Hospital, the "Career of a Case," "A Patient's Life at Guy's," "The History of the Re-endowment and the Festival," an account of the Banquet at the Imperial Institute, accounts of the "Re-endowment and Sustentation Funds," and notes on the Festival Dinner.

All this time the *Gazette* was keeping up a very good standard as a students' paper, and in October, 1896, three paid reporters were appointed from among the students to recount the interesting cases in the Surgery, the Medical Out-Patients and the Post-mortem Room respectively. The Nursing News was fuller and more regular, and the circulation had reached over 1,500 copies.

In June, 1897, a Special Number was published to report the opening of the New Medical School Buildings, and contained many illustrations both of the ceremony and the buildings themselves, and the Special Students' Number this year reached the size of fifty-six pages.

That the importance of the *Gazette* as a students' paper was by now thoroughly appreciated, was made clear in the following paragraph from "Passim" of February 27th, 1896 :—

"Our modesty had, up to the present, restrained us from the idea that the *Gazette* was a periodical of more than lasting importance to any except the very few, but the recent application of the British Museum authorities to be supplied with complete volumes since the *Gazette's* commencement seems to point that it may be of some use to the community at large."

THE "GUYOSCOPE"

About this time the *Gazette's* very famous contemporary, the *Guyoscope*, was first published. The originator of this journal was Dr. B. Burnett Ham, who has supplied a large amount of the following information. The first number was published on January 13th, 1897, and had a sale of 600 copies at 3*d.* each ; its aim was not to put itself into competition with the *Gazette*, but merely

to supplement that record of serious work by chronicling the humours of the Hospital and the unconsidered trifles of the daily social medical world in general. It was intended to be a medical *Punch*, and was inspired by some caricatures, which Stanley Cock had just then produced, of the Teaching Staff of Guy's. Dr. Burnett Ham invited Cock to collaborate with him in bringing out a little periodical—they being responsible for the letterpress and sketches respectively—and thus the first number of the *Guyoscope* was born.

The initial difficulty was one of finance—how was the paper to be published and paid for? The Editor took the manuscript and sketches to Messrs. Ash & Co., the publishers of the *Gazette*, and they were very helpful and encouraging. As there were no advertisements, some were invented, and one of them so appealed to Mr. Millson, the "Boss" of the "Ship and Shovel," as he was affectionately called, that he straightway guaranteed £10 sterling on the strength of a particular brand of Brandy, which, the advertisement stated, "was exclusively used by the medical faculty of Guy's." Thus, from the very first number, the *Guyoscope* attained an assured rather than an assumed position. All copies of the first number were rapidly sold, and as those and subsequent numbers of Volume I were never reprinted, the volume to-day should be at a premium. The wide publicity attained by this small paper was remarkable, for not only did the various hospital journals notice it, but the most flattering and complimentary reviews appeared in the London daily papers. The *Daily Telegraph* even devoted half a column of "London Day by Day" to its review. The first volume appeared regularly in twelve monthly numbers, and the original Editor was able to gather an excellent literary staff, composed of himself, Stanley Cock, W. R. Cazenove and Arthur Miller. These members of the staff wrote some really original and brilliant articles, to the excellence of which the success of the paper was chiefly if not solely due, and, at the time, the Editor predicted a successful future for many of these budding journalists. Some, alas, are now dead, but Arthur Miller is still alive and flourishing, and has become one of the most popular and successful playwrights in London*. He was the author of one of the most notable articles in the early *Guyoscope*, a satire on Hall Caine's novel "The Christian." The part chiefly attacked was the description of hospital life, and *Black and White* contended that it ought to give that number of the *Guyoscope* a circulation equal, at least, to that of the novel itself. The Christmas number was printed in gold and green columns, and was known as *The Golden Guyoscope*. With it was presented a four-page drawing of types of medical students from the clever pen of Gerald Sichel. For a year the *Guyoscope* kept up its high standard, but some of the literary staff then left the Hospital for the more serious duties of private practice, and its epitaph was written in December, 1897. This number was brought out in mourning, with thick black type and black edges on the cover. Its decease was mourned by all of the leading London medical journals, the existing students' hospital magazines and some of the London daily newspapers. But its fame did not die with the end of the first volume, for in 1903 the Editor of the Hospital *Gazette* received a written request from the Bodleian Library, Oxford, for copies of the *Guyoscope* missing from their collection. They wrote: "We are very desirous of making our set of the above complete if possible, and should be glad, therefore, if you could send us the numbers in which our set is deficient." At the time there were no copies in the College Library nor in the Library of the Medical School. An appeal for back numbers, in the *Gazette*, produced two bound copies from Dr. Stevenson, but these have since been lost, and the Wills Library to-day has no copy of this very famous book.

Volume 2 was published in February, 1898, under the skilled editorship of J. M. Fortescue-Brickdale, who carried it on for the following year, when its publication again lapsed. Its price was 6*d.* per copy, and the illustrations were largely from the pens of Stanley Cock and W. M. Thomas. This volume was subsidised by the *Gazette*.

In December, 1905, Mr. May, a student of the Hospital, revived the *Guyoscope* again, but only six numbers were published, and the new Committee then wound it up with an auction sale of the original drawings which had appeared in it. This sale realised £10, which was handed over to the Clubs' Union.

Further attempts have been made from time to time to renew the life of this journal, which at the present moment we hope is not dead, but sleeping.

THE COMMITTEE RECONSTITUTED

In October, 1897, the *Gazette* Committee came under a new constitution. Up to then it had been self-elected, vacancies in its body being filled by gentlemen elected by the Committee themselves. Now it was reconstituted to consist of two members of the Staff, two members selected by the Clubs' Union Council, the President of the Residents, the Editor, the Manager, and not less than four, nor more than six, mem-

*Dr. Miller died in 1935, to the great regret of his Guy's, and many other, friends.

bers co-opted by the Committee. From now on the prosperity of the *Gazette* increased yearly, and its funds were several times placed at the disposal of the other Hospital societies. In 1902, it supplied the money, £33 10*s*. 6*d*., to purchase a new Residents' piano in the College, and in the same year it lent the Clubs' Union £170 for the installation of electric light in the College. In 1904, it went further than this, and lent, free of interest, £200 to the Clubs' Union for building the stand on the ground at Honor Oak Park.

In January, 1900, the Treasurer was asked to relieve the Physical Society of all control, responsibility and ownership, nominal or otherwise, of the *Gazette*, and since that date the *Gazette* has been published by its Committee, entirely apart from any other section or society of the Hospital. It was now in a position to direct and influence Hospital opinion, having a fortnightly circulation of a thousand copies, and it was responsible for originating and carrying through the construction of the Memorial to the Guy's men who fell in the Boer War. For this purpose £270 was subscribed, and the drinking-fountain in the Colonnade, by the door of "Astley-Cooper," was erected. The form of Memorial was not approved by the Editor of that time, but the Memorial Committee decided that this curiously useless and unnoticeable monument was the best that they could manage.

Another fund of any size, instituted and collected by the *Gazette*, was the "Million Shilling Fund," in connection with the Hospital Appeal of 1905. The *Gazette* headed the list with a donation of one thousand shillings, and altogether 74,322½ shillings, or £3,716 2*s*. 6*d*., was subscribed.

Few radical alterations have taken place in the appearance and management of the *Gazette* in recent years. In 1904, "Passim" was moved to the front page, where it has remained ever since, and a slight alteration was made in the heading of the leader page. This was the only change in the form of production until January, 1924, when a thicker paper was brought into use to enable illustrations to be printed on the ordinary pages with more clarity of detail than had hitherto been the case. The index of contents was at the same time moved from the pages of the *Gazette* to page iii of the advertising supplement. In February, 1920, the new salaried post of sub-editor was instituted. One of the agreements on accepting office was that on the retirement of the Editor, the sub-editor should take over his duties, another assistant Editor being elected by the *Gazette* Committee. This arrangement still holds good, and provides against the contingency of the *Gazette* ever being run by an Editor with no experience of its working. At the same time a Dental Correspondent was appointed for the first time. Another alteration which did not take place but was dropped after discussion by the Committee was that of co-opting a member of the nursing staff on to that Committee. It has always been the ambition of the Committee to produce regularly at least one page of "Nursing News," but attempts to do so have invariably come to nothing, due, perhaps, to an excess of modesty, or a lack of time and material.

The censors, who had been demanded by the Governors of the Hospital, were regularly appointed by the Clubs' Union Council, and those who have served in this capacity since the post was founded are :—

Dr. R. Carrington. Jan., 1887— ——.
Mr. T. H. Targett. —— —Jan., 1905.
Mr. C. H. Fagge. Jan., 1905—July, 1906.
Dr. Herbert French. July, 1906—June, 1907.
Mr. Philip Turner. Oct., 1909—Sept., 1913.
Dr. G. H. Hunt. Sept., 1913—Dec., 1916.
Mr. W. H. Trethowan. Jan., 1917—May, 1923.
Dr. J. J. Conybeare. June, 1923— ——.

RALPH MOIGNARD WINGENT

Although never an Editor of the *Gazette*, no history of it could be considered complete without a short account of this talented student, who, from 1907 until his death in 1913, brightened its pages with his unsurpassed sketches and caricatures, and raised its literary level by his historical articles of places of local interest. In 1912 he began to publish his series of articles on "London Bridge and the Borough in the Eighteenth Century," a series that in 1913 were collected and published in a volume entitled "The Borough and the Borough Hospitals," while at the time of his death he was engaged on a second series, entitled "The Resurrectionists," an account of the old, gruesome but useful trade of "body-snatching."

Born on February 14th, 1878, at Moat House, Rochester, Kent, he was educated at Sir Joseph Williamson's School in that city. His education in art and classics was not extensive, but he continued both pursuits after leaving school, making himself a competent and original draughtsman in black and white and a very fair Latinist. At school he was an athlete of all-round excellence, and one year became the school sports' champion, after a strenuous contest of sprint and long-distance races and jumping events. It was only when a severe turn of rheumatic fever had left him a legacy of aortic disease, that he settled down

into the quiet manner, by which most of his friends remember him.

In October, 1897, at the age of nineteen, he entered Guy's, and in due course successfully passed the first examination of the Conjoint Board. This was as far as he got in his attempts to secure their diploma. Constant poor health with periodical severe aortic attacks must have led him to believe that the hard mental and physical work, necessary to the fulfilment of the profession that he had chosen, was beyond him. For the last eleven years of his life he knew of his condition, and of the shortened span of life allotted to him. He still continued his medical studies, passing the primary examination of the London Society of Apothecaries (physiology in July, 1902, and anatomy in 1903), and two parts of the final (midwifery in July, 1903, and surgery in August, 1911), but his heart was in other work, the work of antiquarian research. This he pursued with great enthusiasm, especially in connection with Southwark and the Hospital. He spent many hours in the British Museum and other places in his zest for his antiquarian work, and, it was said, that had he been planted down in Elizabethan England he would have found his way about without asking.

Besides his articles, which, collected and bound, form a lasting memorial of value and interest to others besides Guy's men, he created, with his left hand, a series of topical pictures of Guy and his Hospital that will endure for all time as little masterpieces of topical event. A number of these pictures—cartoons and programme designs—were issued in portfolio form in March, 1913, and had a good sale at two shillings and sixpence each.

On December 14th, 1913, he died in his thirty-sixth year, but left yet one more Guy's memorial behind him. For many years he had been examining various articles of antiquarian interest, that were to be found in different parts of the College, and it was his ambition that they should be collected into a small museum for the benefit of Guy's men and women who were interested, and the surer preservation and protection of the exhibits themselves. He several times discussed the scheme at meetings of the Committee, and at last, in June, 1912, the first Committee of the Guy's "Museum of Antiquities" was composed of Herbert French, Ralph Wingent and John A. Ryle, Wingent being the honorary curator, assisted by the Wills Librarian. The foundation of this museum was almost entirely due to Wingent, and it is often now referred to as "Wingent's Museum," that is, when reference is made to it at all, for there are few now who disturb its antiquarian silence. The old bone room, between the Wills Library and the Gordon Museum, was selected as a suitable site, and a small collection of great interest to all lovers of Guy's Hospital was soon collected and adequately displayed in their showcases. After his death, the post of honorary curator was held from November, 1914, till the end of the following year by W. Wale, the Wills Librarian, whose successor, George Winston, now holds the post for the *Guy's Hospital Gazette* Committee.

A fund to produce a memorial to Wingent's memory was started, and £41 7*s*. 6*d*. collected, with which sum the clock at the north end of the Wills Library was purchased.

During the war period, 1914—1918, the *Gazette* suffered from the general over-working of the depleted hospital staff, but the fortnightly issue was maintained. The last two numbers of the 1915 volume were of twelve and sixteen pages only, but usually the minimum number was twenty. In January, 1916, W. J. Curry was appointed Manager of the *Gazette* in place of C. H. Wells, who retired at the end of the previous year, and in 1918 a War Memorial volume was published, containing a record of all Guy's men who served in the Services during the war, together with portraits and short histories of all those who gave their lives.

In January, 1922, a new departure was the publishing of the first directory of Guy's men, both medical and dental, by the *Gazette* Committee. Three annual numbers have now been published, and it has been found increasingly useful as the lists of names have become more complete. With the announcement of the issue of this directory a circular was sent to all non-subscribing Guy's men and women asking them to become subscribers to the *Gazette*, and that circular letter, together with another one issued in 1923, procured 238 new subscribers. The circulation at the end of 1924 was 2,400, and this is now steadily increasing.

In spite of the difficulties of obtaining Editors with experience to give and time to devote it to the service of the *Gazette*, it remains, what it always has been, the foremost students' periodical in the world, read and quoted in every continent.

THE LAST TEN YEARS

In 1925 the Hospital celebrated its Bicentenary, and a special number of the *Gazette* appeared to mark this event. This was easily the largest number produced so far and contained many interesting accounts of hospital celebrities and important functions, reprinted from *Gazettes* of

long ago, and was a meticulous history of the Hospital in all its aspects. However, though it was very well received, the moderate price of half a crown which was charged by no means covered the cost of its production, and a substantial loss was incurred, but, even so, this number remains a monument to the talent and enthusiasm of its Editor, Dr. Leslie Housden, and is undoubtedly the best piece of work produced by the *Gazette*.

Several events of importance in the history of the *Gazette* occurred in the following year. It was arranged that the relations with the Club's Union Council should be fixed on a firmer basis and that the Accounts and the Balance Sheet should be submitted to the Council from time to time. It was also agreed that in future the Nursing side of the Hospital should be represented on the Committee, and accordingly it was recommended that two Sisters or Nurses should become *ex officio* members.

Later in the year, the *Directory* was revised and brought up to date, and it was also about this time that the *Gazette* first began to appear in the printed wrappers, which may or may not have contributed to the fact that by July, 1927, the circulation had risen to 2,500 copies.

The circulation continued to increase, and, for this and other reasons, it was found possible in July, 1931, to reduce the cost of production to a much more economical figure. Thus the financial position was fairly satisfactory, and when, in January, 1933, it was decided to revive the post of Honorary Curator of the Museum, a post which had originally been held by the late Ralph Wingent and which had for some time past been in abeyance, the *Gazette* Committee was able to grant Mr. Bocquet Bull, who was elected to the post, a sum of fifty pounds for the enlargement and redecoration of the Museum of Antiquities.

However, this period of financial security was soon followed by one of the most serious crises that the paper has ever experienced, when, in December, 1933, owing to the defection of the manager, it was realised that much of the credit balance was fictitious, and, in fact, that there was a considerable deficit. But, in spite of this embarrassing position, by securing extensions of credit and making use of certain assets, the *Gazette* was able to carry on and pay off the deficit without borrowing or realising any capital—an achievement that reflects great credit on those who were in charge of its administration at the time.

It was to prevent a repetition of these unfortunate happenings that an attempt was made to put the finances on a firmer basis, and Messrs. Kemp, Charteris and Nichol were appointed as the official auditors, whilst Miss Sidney, who had already done much valuable work in the interest of the paper, was elected manager.

This seems a suitable opportunity of saying something about Miss Sidney, without whose unfailing efficiency and matchless resource many an editor would have found it impossible to produce a single number. It is doubtful whether a more satisfactory manager exists anywhere in the world.

Little of importance has happened in the last few years, but the paper has appeared fortnight after fortnight, and we hope that it will continue, as Dr. Housden has said, "what it always has been, the foremost students' periodical in the world, read and quoted in every continent."

Fifty Years of Printing

IN response to a request by the Editor to summarise a few of my reminiscences during my association with the *Guy's Hospital Gazette*, I will endeavour to the best of my ability to enumerate those events and incidents which are most prominent in my memory. Fifty years! A long period of time, of which I am afraid I can only claim to have been associated with the paper for the last thirty-five years.

I believe I am correct in stating that ever since the *Gazette* was re-started in 1887 the presses of Ash & Co., Ltd., have been producing, fortnight by fortnight, almost without intermission, copies of this Journal.

Our beginning was upon a very modest scale, with about 12 to 16 page issues, with now and again a special number on particular occasions. During the thirty-five years in which I have superintended the production it has always afforded me the greatest pleasure, for the reason that I am convinced no periodical could boast of a more charming and brilliant sequence of editors than the *Gazette* has had all through the fifty years of its existence.

There have, of course, been occasions when some of them have been a little, shall we say, "trying," in regard to late "copy," or when the material submitted was perhaps not quite up to the high standard demanded by the *Gazette* and consequently had to be censored at the eleventh hour. Fortunately such incidents were of rare occurrence, for which we were devoutly thankful.

To the best of my recollection the first Editor with whom I had the privilege of working was Mr. C. H. Fagge, the eminent surgeon. Needless to say, this was a remarkable stroke of good fortune,

and from that time onward until the present time we have had indeed a wonderful list of Editors, many of whom have risen to great fame.

In so long a list of men of eminence it would be impossible to mention all. I will therefore only refer to such as are most vivid in my recollection. Mr. Fagge was followed by Mr. F. E. Fremantle (now Sir Francis and M.P. for St. Albans), an enthusiastic and tireless worker and possessed of exceptional literary ability. Following close upon his steps came none other than the present distinguished Superintendent of the Hospital and Vice-Chancellor of the University of London, Mr. H. L. Eason. I can recall many a " breezy " time with him during his period of office. It was his invariable custom to be extremely late with his " copy " and proof-correcting, and many a Friday night I would arrive home weary and worn, and offer as an excuse that " that wretched Editor was again late in coming to correct his proofs." Sometimes I rather imagine my family entertained doubts as to the validity of this excuse for being late !

When *The Guyoscope* made its debut in 1896 it gave rise to no inconsiderable ferment, not to say diversion. We printers and publishers were somewhat apprehensive in regard to possible libel suits in which we might be involved, but by good fortune nothing occurred to disturb our serenity, and everyone enjoyed the intensely laughable atmosphere created by each number on publication. Dr. Burnett Ham and Stanley Cock will always be remembered as the bulwarks of *Guyoscope* fame.

Editors came and went, and up to the beginning of the War we were particularly fortunate in having the support of such talented men as F. W. Morton-Palmer, H. C. Cameron, Louis Leipoldt (the South African), E. G. Slesinger, and many others.

During the period of the War I can say but little, as I was away on service, but from 1918 to 1925 we had such eminent Editors as J. C. V. Braithwaite and M. E. Shaw.

In the year 1924 came the great event, the publication of the Bicentenary Number under the able editorship of Mr. Leslie G. Housden ; the wonderful amount of time and energy he bestowed upon this work was astonishing, and the result was generally acclaimed as a most unimpeachable and praiseworthy accomplishment, both from the editorial and printing point of view.

From that time onward until the present date the *Gazette* has gradually increased both in size and in circulation. It was in December, 1933, that Miss Sidney, from the Appeal Office, took over the business management ; her ability and zeal were of invaluable aid and greatly enhanced the smoother running of the magazine and were of great help to the printers.

In so great a hospital as Guy's it is unavoidable that a change of Editors should be of constant occurrence, and it is also a little disconcerting, as we no sooner become accustomed to the personality of one Chief than the hand of fate wafts him away, and another takes his place who is fresh to the job.

Last October we established a record, when the Students' Number totalled seventy-two pages—a circumstance which reflects immense credit upon our present Editors, Mr. Partridge and Mr. Hill, who we sincerely trust will be persuaded to continue the job to which they are admirably suited.

F. J. F.

The Museum of Guy's Antiquities

By G. A. R. Winston, Wills Librarian

AT the instigation primarily of Mr. R. M. Wingent, the *Gazette* Committee in 1913 established in the old Bone Room—a small annexe between the Wills Library and the Gordon Museum—a museum for antiquities associated with Guy's. The reason for the project was to collect together and exhibit to students, visitors and others a considerable number of articles of historical and antiquarian interest, from different parts of the Hospital, the existence of which was known to comparatively few.

It was felt that apart from those already in the Hospital, there were outside many other things of a similar kind which could properly belong to Guy's Hospital itself, and which might be presented or loaned if it were known that they would be properly housed and carefully looked after.

It was, therefore, chiefly owing to the efforts of Mr. R. M. Wingent, who, besides being a student at Guy's Hospital, was a splendid artist, that the project of establishing the Museum in the precincts of the Hospital began to take shape, and for many years it was referred to as " Wingent's Museum."

A sub-committee to consider the possibilities of several alternative schemes was appointed by the *Guy's Hospital Gazette.* Various schemes were considered, and it was eventually agreed that the most feasible plan was to obtain the room, and in co-operation with the Medical School the

scheme was approved. The Bone Room was renovated, and two large glass-topped showcases were installed.

In regard to the manner in which the Museum would be supervised, the *Gazette* Committee appointed Mr. R. M. Wingent as the first Honorary Curator, and the Wills Librarian as Acting Curator.

Recently the Museum has undergone many changes, due mainly to certain structural alterations in the Wills Library. The old Bone Room has been converted into three extra bays, and fitted with bookcases. The Museum exhibits will in future be displayed in two large glass-topped showcases in the Wills Library. The *Gazette* Committee is actually no longer responsible for the upkeep of the Museum, and the Wills Library Committee has taken over the control, but should the Library Committee wish at any time to dispose of any exhibit, the *Gazette* Committee will have prior right for its return, should they desire it. Mr. F. Bocquet Bull continues as Curator of the Museum of Antiquities.

There is no doubt that these exhibits are exceedingly interesting, and the Museum should be one worthy of Guy's, which it can be if only Guy's men, both in and outside the Hospital, assist by presenting or lending suitable objects of an antiquarian nature.

As Mr. R. M. Wingent's name has been mentioned freely in connection with the establishment of the Museum, it may be within the scope of this article to mention that a grandfather clock of 18th century workmanship stands in the Library and perpetuates the memory of Ralph Wingent, Student and Artist, 1897-1913.

At the time of writing many of the exhibits are in store waiting, until the structural alterations are finished, to be catalogued and displayed. It will not be possible to have everything on show owing to the limited amount of space.

Without going into details, most of the exhibits fall under the following categories: personal relics of Thomas Guy and of the "Second Founder," William Hunt; objects of interest associated with the Hospital and illustrating its early history and administration; portraits and mementoes of distinguished Guy's men; antiquities from the Hospital site; some old and rare books of particular interest, including some published by Thomas Guy, and those published on old London Bridge. There are many miscellaneous objects, including the old Lealand & Powell microscope, "Jumbo." A carbolic spray apparatus as used about 1879, although it has been stated that the spray was not used until 1888. The work of Joseph Towne is represented by a wax model of the Duke of Wellington. The collection also comprises antiquities discovered in the various excavations upon the Hospital site. These include Roman jars; Twelfth Century bas-relief from the Abbott of Battle's Maze, discovered on the site of the College; Cellarmines and Clay-pipes dug up from the plague pits.

There are some finely engraved certificates issued by the School in the early 19th century, a few portraits of old Guy's men, and an autograph signature of Thomas Guy.

When old Clinical was pulled down in 1919, some rather interesting antiquarian discoveries were made, namely coins belonging to the Georgian era, Remains of the Middle Ages, and Pre-Roman remains.

The Museum also contains a number of instruments, such as Teddy Cock's puncture per rectum instrument, Pedley's interdontal wire splint instrument for fractured mandible, John Hilton's amputation instruments.

The Wills Library, having now been extended to provide further accommodation for the increasing number of books, will provide space for these exhibits to be on permanent view.

The History of the Physical Society*

By J. M. H. Campbell, Esq., M.D., F.R.C.P., Chairman of Gazette Committee.

THE Pupils' Physical Society is the offspring of the much older Physical Society of Guy's Hospital, and it is from this descent that it claims to be one of the oldest medical societies with an unbroken life.

There has been some doubt about the year of its birth. Except for fifteen years, the minute books are complete from 1775 to 1820, after which they are less complete, but the stamp on the catalogue in the library and on various papers shows that the true date is 1771.

The name shows that it was founded to study medicine, and the Regius Professor of Physic at Cambridge and the old-fashioned expression of taking physic show that Physic then was very similar to Medicine now in every sense of the word. Pupil, too, which is not now very familiar to medical students, was, in the early part of the 19th century, the everyday word.

The Physical Society of Guy's Hospital had many famous members and a long history from 1771 to 1852, while the Pupils' Physical Society arose from it in 1830.

EARLY HISTORY AND RECORDS

It has not been possible to study all the original records for this paper, but in his Inaugural Address for 1919 Sir William Hale White spoke on the history of the two societies. His Address was published in the *Gazette* of that year, and should be read by you all.

Much of it has been reproduced here, and the advantage to you in having Sir William's words instead of mine will make him excuse me for all that has been borrowed. For his permission has not been asked, owing to his absence in India. I am sure it would have been granted, because of the help which he has always given so freely to Guy's.† The papers read and the cases shown to the old Physical Society are all taken from his Address; the more recent ones are taken direct from the minute books, all of which for the two societies are available for you all in the Wills Library. Those for the Pupils' Physical Society run, with one short break, from 1830 to the present day.

There is also a large box in the Treasurer's strong room which holds some interesting relics, and most of the papers read before the Society since 1831.

Dr. Newton Pitt's Hunterian Oration of 1896 was devoted to the early history of various medical societies, and has proved very useful. It was published in the *Lancet* for that year.

EARLY MEDICAL SOCIETIES

Before the middle of the 18th century, there were practically no medical societies or journals. Most medical papers were published in the Philosophical Transactions of the Royal Society, and many doctors were Fellows of the Society. In 1752 a Society was started, which met at the Mitre, in Fleet Street; another, of which William Hunter was the guiding spirit, met at Old Slaughter's Coffee House. The latter published its Transactions, and in an early number is a good description of migraine by Fothergill, himself a sufferer. But neither of these seem to have flourished for very long. One can but acknowledge that Edinburgh was many years before London in starting a medical society. Outside London, Colchester seems to have been one of the earliest places in England.

As all readers of this number will know, Guy's Hospital was opened on January 6th, 1725, when sixty patients were admitted. Ten years later, pupils and dressers were certainly attending the practice of the Hospital. So it was only forty-six years after the Hospital was opened that the Physical Society was founded. Two years later, in 1773, the Medical Society of London was founded. About a quarter of its first Council were Guy's men, and it still exists.

At this time there was not an enormous amount of hospital teaching, and many lectures were given at private houses. There were various reasons for this fresh development; doctors in practice wished to meet others and discuss cases; pupils wished to keep in touch with their old teachers; some arrangement was needed for publishing records of cases and discussions; and, lastly, and perhaps most important, books were very expensive, and most of these societies gradually got large libraries which were available for their members to borrow.

ATTACKS ON THE MEDICAL SOCIETIES

Medical societies seem to have sprung up everywhere in large numbers, and the following

†Sir William made no objection

*Reprinted from the Bicentenary Number of 1926

pamphlet shows that bitter attacks were launched against them by the old-fashioned. John Hunter was influential in starting many of these, and the following quotation is from a pamphlet entitled "Reflexions on a Letter addressed to the Governors of St. George's Hospital by John Hunter in 1792":—

"Your disputing societies, several varieties of lectures in a day and a squint at an operation are the fashionable attendances of the modern student. Since the Medical Tea-sipping Society was commenced mankind has been classed to view the wonders of your museum, and the world indulged with a volume of your notions at the common price.

"It is ridiculous to observe how this tea-kettle invitation has spread. An apothecary may now take his tea gratis and have a game of whist for only the price of the cards every evening in the week if he keeps a regular list of the bread and butter manufacturers."

But most new movements have been attacked, and the value of medical societies has continued to increase.

THE LAWS OF THE PHYSICAL SOCIETY OF GUY'S HOSPITAL

The original book of the Laws of the Physical Society, written in 1775, is still preserved in the Wills Library. The very advertisement inside it, of the stationer from whom this well-bound book was bought, is interesting, for it tells us that Henry Frome was not only a stationer, but that he sold all sorts of paper hangings in the greatest variety and newest patterns. Stationers do not at the present time usually sell wallpapers. Let me quote the preamble to the Laws:—

"Certain gentlemen, desirous of improvement in medicine and other Sciences nearly allied to it, and convinced of the numerous and great advantages arising from a free communication of observations and opinions, have determined for that purpose to enter into an association, which they chuse to distinguish by the name of the Physical Society. And perceiving how much the attainment of the advantages, which they expect from this Institution, may be facilitated by proper Rules, they have agreed to submit the following."

This is hardly capable of betterment; now, as then, the object of our Society is improvement in medicine; now, as then, we are convinced of the numerous and great advantages arising from a free communication of observations and opinions; now, as then, we believe that medicine is a science. If we can, as we ought, make this Society continue to represent the convictions of the founders in 1771, we will carry on the good to medicine and to ourselves that they began 150 years ago.

The Physical Society in those days, as in these, meant business. Just listen to the fines:—

1*s.* if five minutes late at a meeting.

10*s.* 6*d.* if a member did not read a dissertation when his turn came.

2*s.* 6*d.* if a President did not take the chair when he should.

1*s.* 6*d.* if a member leaves the room during a meeting.

6*d.* from everyone who comes to a meeting.

6*d.* a day for books kept out over a fortnight.

1*s.* from any committeeman who does not attend the committee to which he is appointed.

1*s.* from any member who refuses to serve on a committee.

1*s.* from any member who proposes to alter a rule, but fails to get the motion carried.

5*s.* for reading a paper different from that announced.

2*s.* 6*d.* for transgressing any rule.

10*s.* 6*d.* for taking from the Library the book containing list of papers to be read.

2*d.* for every hour an author is late in handing in his paper.

21*s.* if he does not hand in the paper at all before he reads it.

6*s.* if readers of papers change their dates.

5*s.* for not reading your own paper.

Presidents always to pay double fines.

THE LIBRARY AND THE MEETING PLACE OF THE SOCIETY

The object of these fines was to provide money to buy books for the Physical Society Library. When the Society ceased in 1852, these books became part of the Library of the Medical School, now known as the Wills Library; they are still there, and the original catalogue of them can be consulted. As much as £12 and £8 1*s.* was collected in fines at two meetings over 100 years ago. It has been stated that the Society "flourished on its fines." This is quite unfair. Its Library flourished on the fines, and a very good thing too.

If you look through the minutes you will find the expenses of administration extraordinarily low; for example, we read that in 1782 it was resolved that the meetings be held in the theatre of Guy's Hospital, and the porter of the Hospital be rewarded for preparing the theatre with candles. At this time there were 168 members. The theatre was borrowed free of charge, so that expenses were candles. Five guineas were once given to a widow whose husband died of hydrophobia, but it is not stated why this was done.

In a recent *Gazette* the extract from the letters

of a London medical student, written in 1818, says he failed to get the Physical Society's Prize, and he understands that this was because the funds of the Society were so low. If this is a true suggestion, it is probable that the money had been spent on books.

The Society's meetings were held first at 6, then 6.30, and then at 7 p.m. Everything was earlier in those days than now; it will horrify you to learn that some lectures were at 7.30 or 8 a.m. Meetings were held weekly, and about thirty meetings constituted a session; thus you will see the Society did plenty of work.

The theatre was probably the old chemical theatre, where the Superintendent's Office and Bacteriological Department now are. The meetings were generally held on Saturday nights from October to May, another change from the conditions of to-day.

ASSOCIATION WITH ST. THOMAS'S HOSPITAL

One cannot discuss the origin of the Physical Society without mentioning St. Thomas's Hospital. Its history, no doubt, is dealt with at length elsewhere in this number. The pupils of both hospitals attended the practice of both until 1825, and so naturally the members of the Physical Society were the staffs of both hospitals, although from its being called the Physical Society of Guy's Hospital, the desire to found it must have arisen in Guy's. Doctors living in the neighbourhood joined it, and many distinguished men living at a distance considered it a great honour to belong to it.

The famous Dr. Lettsom was for a time President. The Society conferred the Diploma of Fellow on those who distinguished themselves by reading papers of exceptional ability, and Honorary Members were allowed to put S.H. (*Socius honorarius*) after their names.

Since the war joint meetings with the Physical and Medical Society of St. Thomas's Hospital have again been held twice a year. Excellent cases have been shown, and the meetings have been well attended and much enjoyed. The connection is also shown in the survival of the United Hospitals Club, at which members of the two hospitals dine together.

JENNER AND THE PHYSICAL SOCIETY

Perhaps one of the most famous meetings was that held in 1802, at which Jenner gave an account of the discovery of vaccination. The following is taken from Baron's Life of Jenner, 1827 :—

" But the proceedings of this kind which were calculated to convey to the heart and mind of Jenner, at this time, the greatest satisfaction, were those of the Physical Society of London [this, of course, is incorrect; it should be the Physical Society of Guy's Hospital], which holds its meetings at Guy's Hospital, Southwark. At one of these meetings, unusually full, a memoir on the subject of vaccine inoculation underwent long, serious and simple discussion. Dr. Jenner himself attended on four successive nights, having received an express invitation and request from the Society for that purpose.

" On entering the theatre he was constantly received with universal and rapturous applause, and as no discussion was ever of greater importance or of deeper interest, none probably ever attracted in a higher degree the attention of professional and scientific men.

" At the conclusion of this animated debate, the Society expressed to Dr. Jenner their deep sense of the value of his discovery, ' their opinion of its efficacy, and their profound veneration for its author.' After professing their conviction of the prophylactic powers of vaccination, and that it is quite free from any such effects as that of ' calling forth those latent seeds of disease which occasionally arise after small-pox, even under the best management,' the Society thus expresses the sentiments of its members.

" We feel the warmest sensations of gratitude and respect for the liberal manner in which the author has communicated his discovery, uninfluenced by any motive of self-consideration; and we contemplate the discovery itself as a memorable epoch in the annals of medicine. The Society presumes to hope that the author of this happy discovery will meet with that reward from his grateful country which he justly deserves for having thus rendered himself the benefactor of mankind.

" A new order of merit was instituted on this occasion, the members of which are called Honorary Associates. This distinction is to be conferred solely on the authors of some remarkable discovery in medicine. The President, after an eloquent oration, presented to Dr. Jenner the subjoined diploma."

OPPOSITION TO VACCINATION

An interesting commentary on this was a meeting held with the Anti-Vaccination Society in April, 1923. Certain members found that, owing to the prevalence of smallpox and the consequent interest of the general public, they were always being asked questions on the value of vaccination,

and thought that the best way to clear their minds would be such a discussion.

The opposition had evidently started early, for John Birch, a surgeon to St. Thomas's, wrote a pamphlet against vaccination, and a quotation from it shows the great interest the subject aroused. He says: "The anniversary of Mr. Guy's Hospital was held in 1802, where I expected to meet the Professors, the medical gentlemen and the students on the same terms as usual. What was my surprise, then, to find that the sole business of the meeting was to begin a canvass for names to a Petition to Parliament in support of Dr. Jenner's Bill. I refused to sign it. My surprise was increased after dinner to find that toasts, songs and compliments from one professor to another in honour of vaccination were the order of the day."

The Bill referred to was one promoted to give a gratuity to Jenner. The Government proposed £10,000; an amendment was moved that it should be £20,000; but the Government carried the lesser sum by a small majority.

But at the recent meeting referred to, no doctor could be found from all England willing to face a medical audience while speaking against vaccination, and after the discussion the Physical Society unanimously passed a resolution that "vaccination is of proved benefit to mankind."

HARRISON AND THE PHYSICAL SOCIETY

I have often wondered how it was that Jenner came to read his paper at Guy's, but Dr. Newton Pitt's paper says that it was through that remarkable man, Mr. Harrison, who, born the year the Physical Society was founded, became Treasurer at the age of twenty-six, and always strongly supported the Society. A Treasurer's Prize is still given each year. Harrison held his office for fifty-one years. He was a most beneficent autocrat, and was known as King Harrison.

Apparently he went to stay with a relative at Cirencester, where he met Jenner, with the result that Jenner soon after came to Guy's. Mr. Allen, the founder of Allen and Hanbury's, came to a meeting in 1802 to hear Jenner's paper. The debate was continued for four nights.

But the length of the debate on Jenner's paper was exceeded in 1793, when a friend of Cline, the surgeon, read a paper entitled "An Essay towards a definition of Animal Vitality." The debate on this subject lasted for six successive evenings. This is specially interesting because he was one of the very few non-medical members. In 1797 a debate on "Fermentation" lasted four evenings.

DISTINGUISHED MEMBERS OF THE PHYSICAL SOCIETY

The following six sections are taken almost verbatim from Sir William Hale White's Address:—

"It is impossible to give an account of all the distinguished members of the Physical Society. Its earliest President was Dr. William Saunders, one of the physicians to Guy's Hospital. He was the first person to lecture at Guy's Hospital, and he lectured on physiology, medicine, chemistry and materia medica. Probably his lectures were very popular, for Astley Cooper describes him as a very entertaining lecturer.

"On looking through the old minutes of the Physical Society it appears that probably the most active of the earlier members were Astley Cooper, Babington, Cline, Haighton and Curry." In Sir William Hale White's Address you will find short biographies of these men, which are here abridged.

"Astley Cooper's fame is known to all. He was a wonderful man, cheerful, good-looking, well-built, a good speaker, a born teacher. He had untiring industry, dissecting before breakfast, and yet visiting the wards late at night; he was a great surgeon, skilful as an operator. He enjoyed marvellous health, saying he could digest anything but sawdust. He was enthusiastically fond of his profession; even at the height of his fame he would step out of his house by a back door leaving a room full of private patients unseen in order that he might be punctual to meet the enormous crowds of students waiting to go round with him. Wags said his butler saw the patients he left behind; and finally, he had this great advantage, that he knew his limitations; he was aware he was not a John Hunter, and so he did not pretend to have his mind."

Babington "founded the Geological Society, the Hunterian Society, and helped to found the Royal Medico-Chirurgical Society. If you really wish to hear a fine eulogy [what would each of us give to have the same said of him?] let me read that of Richard Bright on William Babington:—

"'He had such a sweet simplicity of character and so profound humility that, while thousands sought his aid as a pearl of inestimable price, he seemed unconscious of his own pre-eminence. He had such benevolence of heart as few have witnessed, an instinctive dread of inflicting pain and delight in doing good. He had so trained his mind to kindness that a quick answer or an ill-tempered word was never heard to escape his lips. Sorrow always found sympathy in his heart, his hand was ever open to relieve, and the register of

heaven alone contains his daily acts of professional charity.' "

" ' In him was to be found an excellent example of that wholesome and yet comparatively rare combination of knowledge which unites our professional pursuits with the study of the natural sciences, which connects the physician with the philosopher; and thus he found time to gain a well-merited reputation not only as a chemist, but mineralogist and geologist, at a time when these were in their infancy. Such were a few of the characteristics of this truly great man, this almost perfect physician, who was an honour to our College, an ornament to our profession. No man ever passed more hours in the conscientious discharge of duty; no man by his personal exertion ever did more good.'

" John Haighton began life as an anatomist, became a distinguished physiologist, and practised as an obstetric physician, which office we find him holding at Guy's. He was a man of very great ability, for in addition to his medical attainments he was a distinguished mathematician.

" James Curry was a learned physician at Guy's, who gave to a disordered liver the credit of most ills, hence he prescribed calomel for almost all his patients. The students said he always peppered with calomel the sandwiches that he had for lunch. He was irascible. The minutes of the Physical Society show that on one occasion he took offence and resigned his presidency of it, and that he refused to reconsider his resignation."

PAPERS READ TO THE SOCIETY

There have been more than ten thousand meetings held, so they cannot be referred to in any detail, but a few are of special interest. You will often find John Hunter's ligature of the femoral artery for popliteal aneurysm mentioned in medical literature. This operation was described by him before the Guy's Physical Society.

" In 1812 the great Bright read a paper on blood-letting. No account, as far as is known, exists of this paper. It would be of immense interest if we could know his views on the subject, for it was only eighteen years later than Marshall Hill published one of the classics of Medicine, ' Researches principally relative to the Morbid or Curative Effects of Loss of Blood,' a book which may be said to be the starting point of our knowledge of the harm of indiscriminate venesection.

" From the earliest foundations of the Society there have been essays on fixed subjects. Certainly one of these was difficult. Thus in 1776 the subject was ' In what points of view should the human body be considered, so as to speak of it intelligently yet consistent only with truth and reality? ' But the other two in this year were more practical, namely, ' Is nutrition performed by the arteries or the nerves? ' and ' Whether at once to deal with an artery wounded in a venesection or to wait till an aneurysm forms and then treat that.'

" The first of these we still discuss; the second reminds us of the former frequency of venesection. Thousands of people were bled every spring and fall as a precautionary measure. Occasionally aneurysms or even death from pyæmia resulted. Next year the subjects were ' What are the causes of the menstrual flux? ' and ' Whether sufferers from dropsy should be allowed plenty to drink? ' A few years later the subject was ' Whence the saccharine matter found in the urine of those who labour under diabetes? '

" You notice that some of the problems which troubled our ancestors perplex us still, and it is sad to reflect that all the learning and research of a century have not completely solved them. But do not let this make you despair, for in several matters, which were among those then most frequently discussed, we have indeed advanced."

HYDROPHOBIA

Of this dread disease Sir William Hale White writes as follows: " Hydrophobia was often brought before the Society. Now in this country it is stamped out among human beings, and even if a man is bitten by a mad dog hydrophobia can be prevented provided that treatment is undertaken at once. I am just old enough to have seen several fatal human cases, some under my own care. Untreated—and it was for all the good results that were obtained untreated, until Pasteur's researches were known—it is almost always fatal; the sufferings are intense, and no form of death is more terrible to witness. Properly applied, muzzling orders eradicate it among dogs, and then there can be no hydrophobia among human beings in this country.

" It is your duty to tell the public this, and to picture to them what an awful disease it is. Mr. Long, who first made muzzling compulsory in this country, thereby became a benefactor to mankind; but, as you might expect, all sorts of ignorant people abused him fiercely. As Lord Salisbury said, there were those who would vote for a Government that would plunge us into a European war provided that such a government would repeal the muzzling order.

" I thought I knew how awful hydrophobia could be, but, buried in the minutes of the Physical Society for 1795, is the most terrible

thing I have ever come across, worse than any tale by Edgar Allen Poe. A member related that a young man, married a few days before, was during the night seized with a paroxysm of hydrophobia. He tore open the abdomen of his wife with his teeth. Both were found dead; he with the intestines of his dead wife wound round his bloody arms.

PATIENTS SHOWN BEFORE THE SOCIETY

"It is worth while to observe some of the clinical cases which were related before the Physical Society in these times far ago. One was a case of contraction of the elbow successfully treated by carrying a weight in the hand. This seems rational treatment. A woman who grew hairs from her tongue sounds as though now she would arouse considerable interest among pathologists. Probably you will agree that there is an error somewhere in this story. A man as a result of an accident fractured his skull and died. Three days later the man who caused the accident died of grief.

"On more than one occasion in 1783 it was stated that a poultice made from stale beer grounds was most efficacious, making us wonder whether this was due to the antiseptic properties of the alcohol; and in 1795 we have a hint of the same properties of mercury salts, for Mr. Davie related a curious circumstance. Two subjects were brought into the dissecting room at the same time. On the second day one had become putrid, and was covered with maggots. The other adjacent to it was avoided by flies. This patient had been heavily treated with mercury for syphilis. Was, asks Mr. Davie, this the reason why the flies avoided her body?

"Some of us are so proud of the application nowadays of scientific principles to medicine that we are prone to consider that our forefathers were not scientific. There is abundant evidence from the old Physical Society that this is quite erroneous. The debates on vaccination and the ligature of the popliteal artery by Hunter are alone enough to refute it.

"Many experimental results were placed before the Society. For example, in 1794 Mr. Coleman relates that he has been ligaturing the carotid of an ass in two places, and has observed that the blood between the ligatures was coagulated, and he brings these results forward as he considers they have a bearing on the proper treatment of aneurysms. In 1783 Dr. Hawes got up and told those present that he had heard from a practitioner of the case of a man insensible who had been revived by applications of cold. He was particularly pleased to relate this, for in his lectures he had always advised warmth in these cases. Surely scientific openness of mind and candour could go no further than this, and it will be good for us all if we constantly remember Dr. Hawes.

"Some of the cases are amusing. For example, we hear of a gentleman who swallowed two guineas, which were passed per rectum; others indicate that times have changed, for in 1806 Dr. Buxton related the case of a woman who, in a fit of despondency produced by losses in the lottery, took rat poison and died, and in the same year Mr. Pugh told of a young milk-woman who, in the late violent storm of wind, was thrown across her pail, injured her thigh, and gangrene of the leg followed. The milk-woman with her pails hung from either shoulder has long disappeared from the London streets. In 1809 we notice that the day of meeting of the Society has been altered in order that it should not fall on twelfth night."

"Many discussions took place on the treatment of strangulated hernia, then a frequent cause of death. Scurvy also was often mentioned, for it was then a terrible scourge; but probably now not a single one of you has ever seen a case in England."

"Electricity was discussed then as now. The limits of usefulness in medicine were not easy to draw. We can hardly imagine a debate to-day on either exfoliation or putrid fever, but both were debated about 120 years ago.

A GOOD RESOLUTION

"On March 6th, 1813, the following excellent resolution was passed: 'Resolved that the dresser for the week should be required to furnish whatever may fall under his observation interesting to the Society.' What a good thing it would be if this could be enforced now.

"The Physical Society not only kept alive, by its meetings, scientific and clinical interest in medicine and thus made itself famous, but it promoted medical knowledge by providing for its members a large lending library. The importance attached to this is shown by numerous references to the library and the librarian in the minutes.

VIOLENT SCENES AT THE MEETINGS

"Once there was nearly a tragedy at the Society, but all ended happily. On May 17th, 1783, a letter from Mr. Morrison was read, saying that he resigned his place in the Society because of the great injustice and contempt with which he had been treated at the last meeting at which he was present. Resolved:—

"That it appears to this Society that Mr. Morrison has proved himself highly undeserving of the honour conferred upon him in electing him a member, that his complaint of being treated with injustice is ill-founded, and that ye Members were too lenient in requesting him to continue a member after the disrespect he had shown to the Society two succeeding evenings and further that it is the order of ye Society that he never after appear here even in the character of visitor."

"Next meeting he came and was observed. It was agreed that no business could be transacted in his presence, and he was informed of the above resolution. Nevertheless, he refused to withdraw, but pulling out a pistol from his pocket threatened the life of anyone who should read the minutes of the previous meeting in which his character was stigmatised. In consequence of this interruption the President adjourned the meeting to Dr. Babington's parlour. In a short time Mr. Morrison took his departure and the members returned to ye theatre, and the ordinary business proceeded.

"At the end of this and after papers had been read it was resolved, 'That as the Hon. Sec. appeared to be the person against whom Mr. Morrison's threats were chiefly directed, that the Society should support him in ye expense to which he might be put in proceeding according to law against Mr. Morrison,' and a committee was appointed to support him.

"Next meeting the committee reported Mr. Morrison had signed in the presence of Justice Levy a letter in which he acknowledged the impropriety of his conduct and that he would never attempt anything like it again. Whereupon the Society resolved that it be entered on the minutes :—

"'That it is ye opinion of this Society that Mr. Morrison has done everything that could be expected of him as a gentleman, and that ye Society therefore admit his letter as sufficient apology.'"

We have now followed the Physical Society through its period of greatness, and can turn to the history of the Junior Society.

THE PUPILS' PHYSICAL SOCIETY

The Physical Society had been so successful and had shown so clearly the advantages to be derived from meetings and discussions, that in 1830 the students of Guy's founded the Pupils' Physical Society.

The earliest annual programme which I have found is for 1833, but as it is rather damaged, that for 1838 is here reproduced. As on all the Medical School cards for attendance at lectures, etc., there is a blank space for filling in the name of the pupil who held the ticket.

Pupil's Physical Society,
GUY'S HOSPITAL.

Honorary President,
MR. E. COCK.

Presidents,

DR. RIDGE,	MR. EDEN,
MR. OLDHAM,	— OTWAY,
— ASPLAND,	— J. SCOTT.

The General Meetings for the Sessions 1838-39, will be held on the following Saturdays, from 8 till half-past 9 p.m.

1838.	1839.
Saturday, Oct. 13.	Saturday, Jan. 5.
27.	19.
Nov. 10.	Feb. 2.
24.	16.
Dec. 8.	Mar. 2.
22.	16.
	30.
	Apr. 13.
	27.

Admit Mr.

JOHN BIRKETT,
Honorary Secretary.

The Society was run very much on the lines of the older Physical Society. The printed rules for the same session still survive, and tell us that only students could be members, but that "the Medical and Surgical officers of the Institution" could be Honorary Members.

There were six Presidents as well as the Honorary President and Secretary. The Society was run on very autocratic lines, the 4th and 8th rules reading :—

"The subjects for discussion to be strictly those connected with Medicine, Surgery, and the Collateral Sciences ; the Society having no power to discuss any matter relating to its private regulations."

"The Presidents and Secretary to constitute a Committee by which the regulations requisite for the benefit and good order of the Society are to be made."

Each member paid 2*s.* 6*d.* on admission, and all papers had to be delivered to the Secretary at least a week before the meeting at which they were to be read.

The paper which won the Society's Prize in 1831 is still kept with many others. Its title-page read :—

Essay on Vaccination
to which was awarded
The Prize
by
The Pupils' Physical Society
of
Guy's Hospital, London,
at the Session, 1831-32.

By William Dodd.

It is well written on beautiful paper, and the ink is scarcely faded to-day. In these days of hurry and cheap printing I am afraid none of these things would be true. Nor is it likely that the Essay would start with a Greek quotation from Demosthenes.

This decade must have been a period of great activity in the life of the hospital. A few years before the Physical Society was started, Dr. Addison had developed some systematic cases taken in connection with his clinical lectures. A few years later the *Guy's Hospital Reports* were started, and the same year the Clinical Report Society was founded.

Among the first members and honorary members of the Pupils' Physical Society were Curry, Hilton, Bransby Cooper, Hughes, Key, Stocker, John Morgan, Astley Cooper, Monson Hills, Hodgkin, Bell (the dentist), Addison, Babington and Rees. Probably never did a Society begin with such a distinguished membership. Well might Dr. James Blundell on November 20th, 1830, write thus in thanking for having been made an honorary member :—

" I feel a confident expectation that many who are now enrolled among its members will, by their future fame and fortune, in turn reflect upon the Society with increased lustre, the reputation which they may derive from it.

" I have the honour to remain,
" Dear Sir, with consideration,
" Your obedient servant,
" JAMES BLUNDELL."

" TEDDY " COCK

The Society was fortunate in its first Honorary President. Mr. Edward Cock was chosen in 1830, eight years before he was appointed assistant surgeon, when he was only twenty-five years old. He remained President till 1876. At most of the Inaugural Meetings, and at many others, he was in the Chair. For half a century he occupied a warm place in the heart of every student, and much of the success of the Society must have been due to him.

Cock was a nephew of Sir Astley Cooper, but, unlike him, was an extreme Conservative in most things. His name is not known in connection with any great advances in surgery, but all he did as a surgeon and as a teacher was well done. His ability and humour, with his great kindness of heart, made him a remarkable and much-loved figure, known to all as Teddy Cock. He lived for a long time in St. Thomas's Street, but later at Kingston, where he died at the age of eighty-seven.

At a meeting in 1876, Mr. Symonds moved the following resolution, which was seconded by Mr. Shaw and carried unanimously : " That the Presidents and Members of this Society desire to express the deep regret which they feel at the retirement of Mr. Cock from the post of Honorary President ; and their warmest sympathy with him in the illness which compels him to take this step."

SIR SAMUEL WILKS

He was succeeded by Dr. Wilks, later Sir Samuel Wilks, Bart., F.R.S., who remained its Honorary President till 1911. It is not often that a Society continues with only two Presidents for more than eighty years, and in this case it seems to have been singularly successful.

Wilks was a great pathologist, and a great physician, who did much good work for the Hospital.

Here I should like to quote from a letter of his in the minute book of the Society in 1908 :—

" I am sorry not to be able to be present at the meeting of the Physical Society with which I have been connected for so many years. I was always delighted to be thus associated even by so slender a tie with my old school. I should like to congratulate the members as present and past students on the way they have developed all the departments of the school since my day.

* * *

" I do not, of course, pretend to fathom the depths of modern physiology, seeing the immense strides it has taken since my day, nor should I dare to know what bio-chemistry is doing, much less anything of the doctrine of ions.

* * *

" I cannot do better in taking my farewell of the students (and it may be my last) to quote the first Address given to Guy's men by William Allen about the time I was born. Your Profession is a literal one and it is expected that your conduct shall do honour to that profession. It is not enough that you bring to it that knowledge which is essential to the cure of diseases. Suffer-

ing humanity requires something more; it desires sensibility of heart and those exalted feelings which distinguish the good and worthy man.

* * *

"Now I bid them farewell.

"Yours sincerely,

"SAMUEL WILKS."

Since then the Society has been less fortunate in the length of office of its Honorary Presidents.

PAPERS READ TO THE SOCIETY

With the exception of the suspension during the great war, meetings have taken place regularly every winter session since 1830; cases have been shown, papers have been read, discussions have been held, and essays have been written. In the early days we find, just as in the early days of the parent society, the proper treatment of strangulated hernia was frequently discussed; tobacco enemata were thought to be useful, but the mortality, with or without operation, was very high. The subject of erysipelas, the disease so dreaded by surgeons and obstetricians before the introduction of antiseptics, was frequently before the Society; on one occasion four successive meetings were devoted to it.

In 1840 Gull became a member, and read a paper on Diseases of Pregnancy especially Mania, but it is clear that most of his cases were examples of low-muttering delirium accompanying the awful puerperal septicæmia so frequently following confinement. In 1838 there was a discussion on valvular disease of the heart and the murmurs associated with it. At the 87th meeting, held in 1837, a vote of thanks was passed to the Clinical Report Society, to which reference has already been made.

Wilks, when a student, read a paper on Bright's disease which, when expanded, was published in the *Guy's Hospital Reports*; he always attributed his appointment to the Staff to this paper.

In 1869 Mr. Larkin read a paper on Nephrotomy and Excision of the Kidney. A case of renal calculus had set him thinking about operations on the kidney. He demonstrated by operations on rabbits that the kidney could be excised without affecting the health of the animal, that the animals quickly recovered from the operation, and that the remaining kidney hypertrophied. Mr. Cock, from the chair, said that if a suitable case presented itself to him he should not hesitate to operate for stone in the kidney.

There were several debates on Listerism. One member showed triumphantly a piece of steak that had been wrapped for a long time in carbolic gauze without undergoing putrefaction. One important step in medicine has been the introduction of salicylates for rheumatic fever; there were papers and debates on this before the Society. Looking through the old accounts of the Society's meetings, we notice that there were real live debates, in which a large number of members took part. Papers on rheumatic fever seem to have been very frequent, so as to suggest that it was even more prevalent than it is now.

MALARIA AND PYÆMIA

It is not possible to refer to all the matters of interest which one finds even on dipping into the various papers and minute books. In 1857 Mr. Gayleard read a paper on Ague, maintaining that the disease depended rather on the nervous system than on a malarious atmosphere. In the discussion which followed, Mr. Goveling mentioned that the malaria never rose beyond a certain height from the soil. Looking back with our present knowledge, it seems curious how long it took for such an observation to lead to the right conclusion about mosquitoes, but a real stroke of genius was needed to break such new ground.

I should like to quote the beginning of another paper which Mr. Gayleard read in 1860 on Pyæmia to show the change of style which has taken place since then.

"Mr. President and Gentlemen,

"Let me lead you to the bedside and there introduce to your deep and earnest consideration a subject of awful interest, a disease stern and inconsiderate—the unflinching and certain movements of a Destroying Power.

"See there a form once vigorous and perfect, lying prostrate and subdued—a visage once gay and bright, now sunken and blighted—a soul saddened and sickened at the thought of certain Death."

And the end is in the same style:—

"You have followed me to the bedside. You have seen a case of Pyæmia. You have patiently heard the vague and conflicting opinions of authorities, and the more tiring but faithful summary of nearly all that I could make of the subject.

"You have kindly followed me throughout my story, but let not your interest rest here," and he finished with an exhortation to use all their energies to find some cure for such a terrible

disease." Perhaps Mr. Gayleard spoke rather differently from his fellow students, but it must be a long time since anyone addressed the Society in such terms.

THE RISE OF PHYSIOLOGY

Various changes in hospital practice and in medical education are reflected in the pages of the minute books. In 1876 Wooldridge spoke on the relation of physiology and medicine, and the next year read a paper on the physiology of the nervous system.

About this time Mr. Deane read a paper, " Some Notes on Practical Physiology," and the discussions which followed are interesting in view of subsequent developments. Mr. Roper thought there was little time for physiology, but he agreed as to the great value of the microscope.

Mr. Coley thought Mr. Deane only recommended the various experiments he had spoken of in the way of recreation, rather than as a serious study; he thought all men might not be in a position to do this, some having their minds rather turned to thinking, general literature, or metaphysical studies.

Mr. Shaw thought an element in success at the microscope had been left out—namely, the faculty of using one's fingers.

Mr. Russell did not believe the practical study of physiology was necessary. He would study the principles of each system throughout the animal kingdom. Delicacy of touch could be learnt as well from dressing as dissecting.

Mr. Wainwright had no doubt of the utility of practical physiology, and would study zoology before coming to hospital.

Mr. Downs would have agreed with Mr. Russell if he thought the whole object of work was to pass examinations. Knowledge available for practice could not be got from books, but only from constant practical acquaintance with it.

Mr. Kidd would have physiology studied both for its own sake and in order to cultivate habits of observation and the desire to see for oneself.

Mr. Deane then replied, and after a vote of thanks to him had been passed the meeting adjourned.

Although physiology is now in an established position, the attitude of mind revealed by the various speakers still persists, and shows the lines of cleavage which still exist in any discussion of the path along which medical education should develop.

But we must pass on to more recent times.

THE PRESENT MINUTE BOOK

The minute book which is at present in use records all the meetings since October, 1895, and from this a few papers are selected which may be of interest to men now at Guy's. In 1895 Mr. Turner read a paper on " Heredity," and the following year Mr. Ramsden (well known to many generations of Oxford men) read one on the " Diagnostic Value of Examination of the Blood." The use of the Physical Society in training men for public speaking is well shown in this session, for Mr. Salter, now Labour M.P. for West Bermondsey, read the Treasurer's Prize Essay which he had won, and Mr. Fremantle, now Conservative M.P. for St. Albans, read a paper on " Castration for Enlarged Prostate." The following year the Treausrer's Prize was won by Mr. Ormond with a paper on Glaucoma.

As various advances have taken place in medical science, they have been reflected in the meetings of the Physical Society. Thus in 1897 Mr. Starling read a paper on Röntgen Rays, and the members were much interested in the demonstration which was given, and two years later Messrs. Kirkman and Shenton read a paper on " Some Recent Developments of X-Rays as applied to Medicine," after which the minutes record that " Mr. Beddard referred to some recent experiments on swallowing and intestinal movements carried out by means of Bismuth pills."

The introduction of another now notorious novelty is shown in the account of the inaugural meeting for 1910, when " Dr. Eyre, undaunted by the strains of the ' Dollar Princess ' which proceeded from the band at the head of the staircase outside, gave a clear account of the meaning of the Wassermann test and the method of carrying it out to an interested crowd."

In 1899 three papers were read by students who still have connection with Guy's: " The Function and Pathology of the Pituitary," by Mr. Nicholson, " Transfusion and Infusion," by Mr. Beddard, and " Congenital Heart Disease," by Mr. French; and in the following year the present Superintendent read a paper on " An Elizabethan Handbook of Therapeutics." Two years later there was a discussion on Cancer which seems to have followed very much the same lines as a discussion in the Society of 1924; and in 1905 a discussion on Gout was opened by Mr. Hurst.

QUEEN ANNE'S POST-MORTEM

At a meeting in 1910, Dr. Cock showed some documents relating to Thomas Laurence, M.D. Padua, F.R.C.P. London, a 17th century Court physician, including a contemporary copy of the

report of the post-mortem examination of Queen Anne. This seems worth quoting.

AT THE COUNCIL CHAMBER, ST. JAMES,
THE 3RD AUGUST, 1714.

Present :—

Their Excellencys the Lords Justices in Council.

The Physicians called in and Dr. Laurence delivered the following paper, containing an Acct. of what was observed at the opening of her late Maj. Body.

Kensington Palace,
2 *August*, 1714.

Upon opening the Body of her late Majesty of Blessed Memory, We found a small Umbilical hernia Omentalis without any excoriation, a large Omentum well Coloured. No water in the Cavity of the Abdomen. The Stomach thin, and its inward coat too smooth. The Liver not Schirrous, but very tender and Flaccid as were all the rest of the Viscera of the lower belly. The Gall Bladder, Kidneys and Urinary bladder without any stone. There was a very small Scorbutic ulcer on the left leg. We can give no further account being forbid making any other inspection than what was absolutely necessary for Embalming the Body.

Then follow the names of the physicians who signed this document, including Laurence, John Arbuthnot and Hans Sloane.

SIR WILLIAM OSLER AND THE PHYSICAL SOCIETY

The inaugural meeting of 1905 was, perhaps, the most interesting meeting of the present century. Over 100 members of the Society dined together, and afterwards adjourned to hear Professor (afterwards Sir William) Osler read a paper on "Sir Thomas Browne,"—his first public engagement in England after his appointment as Regius Professor at Oxford. The following is taken from the *Pall Mall Gazette* of the next day.

"On securing Professor Osler to open their winter session, the Physical Pupils have every right to plume themselves. Sir Samuel Wilks, a very venerable figure, with his snow-white hair, and himself still a Physical Pupil, claimed, later on, that the occasion was historical, a date of Imperial significance. Dr. Osler was, he said, the first representative of Greater Britain whom Oxford ('of all places in the world') had called from overseas to fill a professorial chair at home. The occasion attracted a notable gathering of old Guy's men, including, in addition to Sir Samuel Wilks, Sir Thomas Stevenson, Dr. Goodhart, Dr. Frederick Taylor and many other representatives of light and learning in the medical world."

And there was a certain fitness in Dr. Osler's introduction to London there, seeing that he professed himself a Guy's man, if not by birth, at least by adoption and grace, as while yet in his pupilage he had sat at the feet of a Guy's man and had received unto himself the traditions of its school.

One's expectations were high, too, because the general reader has had occasion to become acquainted with Professor Osler's literary style. As a lecturer he added to it the attractions of a vigorous and interesting personality. Alert and keen, there was something refreshingly business-like in the way in which he plunged into his subject without preamble of any kind. As regards its matter, it was one of those rare lectures which it would be impossible to epitomise, because it was in itself an epitome. Through it all, in parentheses and apart from the written text, there flashed a brilliant vein of humour that refused to be suppressed.

With a plea for the customary indulgence always extended to a bibliomaniac at the hands of his saner brethren, he outlined Sir Thomas Browne's biography with a lucidity that brought the man before his hearers.

To verify the tradition that Browne had graduated at Leyden, the lecturer had gone thither and had failed to find any record of his name. But Browne's then narrow means perhaps explained why he had not taken a degree, because a contemporary letter records that to graduate at Leyden "costs £16, besides feasting the Professors," while in France you can do it for £9 without feeding the authorities. The Physical Pupils expressed their appreciation of the sentiment.

Referring to Browne's marriage, the lecturer dwelt for a moment on the vein of misogynism expressed in his writings. "He seemed, however, later on to have modified his views. There were ten children of the marriage."

Browne published the "Religio" before he was thirty. The lecturer touched gravely on the author's theory that after thirty a man's "magnetic force" begins to decline, "a sufficiently serious reflection for those advanced thinkers who to-day hold that up to forty"—— The rest was a roar of laughter.

And so throughout the lecture. A spontaneous, dry, often sardonic, sense of humour routed all conventional dullness.

SIR WILLIAM HALE WHITE'S ADDRESS

In conclusion, I cannot do better than quote from Sir William Hale White's Address :—

This short and imperfect sketch of these two Societies, extending from 1771 to the present day, shows that they have had a wonderful career, of which all members of this Hospital may well be proud. They have aided the progress of medicine and have contributed to the medical education of thousands of students. There are two reasons why it is your duty to support the Physical Society by reading papers before it, showing cases, attending its meetings, and speaking at its debates. Firstly, your duty to this Hospital and Medical School; second, your duty to yourself.

The secondary reason why you must support this Society is that it is good for your own sakes that you should. It is impossible to exaggerate the clarifying effect of free discussion. Debate a subject and you will find that other speakers let in light on your difficulties and that you illuminate theirs. You will always come away from a good discussion knowing more about a subject than you did before, and you will recognise that you see it in wider and more proportionate perspective. The moment you have to talk about any matter, you are aware of the lacunæ in your knowledge of it, and you will fill them up.

You have often heard me say at the bedside that I would sooner you talked to me than that you should remain silent and listen to me, for then I can see your difficulties and, if it lies in my power, remove them. Half an hour's discussion is often more useful than hours of reading or attendance on the sayings of your teacher.

Then, too, it is a great asset to learn to speak, for to do so you must arrange your knowledge and arguments in a manner which will make them plain to your hearers; frequently you will discover that, although you think you understand a thing, when you come to speak or write about it you do not. It has been said that a man never really comprehends a subject until he can explain it to others, and this is true.

Just as by debating here you can learn to speak, so by reading papers you can learn to write. There are, of course, born speakers and born writers, but they have to practise and are thereby improved. Even if you are not blessed with the gift of doing either readily, your aptitude can be developed by practice.

Even more important is your duty to the Hospital and Medical School. You are enrolled as members of a school with great traditions, with a reputation for always advancing medical science, a school at which Bright's disease, Addison's disease, pernicious anæmia, myxœdema, and other diseases have first been differentiated, at which vaccination was welcomed enthusiastically, which was one of the very first in England to adopt Listerism, which was brought to Guy's by Sir Henry Howse, which has produced the best book on medicine ever written, namely, that by Fagge, and which has had among those connected with it many men whose names are famous in every civilised country.

Now all these discoverers and teachers were members of the original Guy's Hospital Physical Society or of this Society, its offspring. Your present members have, therefore, inherited a great inheritance, and you must for the sake of the members who have preceded you and for the sake of the Society itself, see that it does not wither under your care; you must so look after it that it continues to be the famous Society that it has been in the past. Do this earnestly and you will have the pleasant feeling that you, too, are helping your great ancestors; each of you then becomes one of them, insomuch that he also is making the fame of the Guy's Hospital Physical Society.

A SHORT SUMMARY OF THE LAST TEN YEARS

By C. G. Baker, M.B., M.R.C.P.; Editor, 1932-33; Joint Hon. Secretary of the Physical Society.

Looking at the minute book of the Pupils' Physical Society covering the ten years following 1926, one is struck by the fact that the programmes have not differed in essentials from year to year.

That this has been so without any falling off of numbers or diminution of enthusiasm must mean that the Society is constituted and is conducted in a way which satisfies its members and fulfils an essential part of the Hospital life. The reasons for this continued success are not far to seek.

Firstly, the continued interest of the Hon. Presidents and Vice-Presidents is remarkable in this student society. Sir Charters Symonds as President regularly took the chair at opening meetings, and in 1930, the year of his resignation from this office, was showing pathological specimens at the Clinical meeting. In 1931 he was succeeded by Dr. John Fawcett, who has continued to support the Society regularly, not only as Chairman, but as an ordinary member. The Vice-Presidents, Sir William Hale-White, Sir William Arbuthnot Lane, and Dr. Beddard have all read papers to the Society.

Secondly, it has been the custom to invite at

least one paper a year from some authoritative person either from the Staff of this Hospital or from outside, and we find that Sir Humphrey Rolleston, Sir Patrick Laidlaw, Mr. Bellingham Smith, Dr. McNee, Dr. Letheby Tidy, Dr. Witts, Dr. Douthwaite, Dr. Grant, Professor Wright, Mr. Spurrell, and Mr. Eason have all spoken. These evenings have undoubtedly been a stimulus to the Society, not only on account of the papers themselves, but as a change from the ordinary routine of papers by members or discussion of clinical cases.

Lastly, and most important of all, the Society has never ceased to be the Pupils' Physical Society, run by unqualified and newly-qualified men. The combination of members, as chairmen, with the two honorary secretaries, one from the medical and one from the surgical junior staff, is a satisfactory one, and is no doubt responsible for the vigour and freedom from restraint that is shown in discussion at the clinical and pathological meetings, which form the bulk of the Society's programme. Twice a year the Society combines to see and discuss cases with the Physical Society of St. Thomas's Hospital. Thus is the friendly animosity between the two hospitals maintained, and St. Thomas's is brought to St. Thomas's Street again.

Guy's Hospital Nursing School

By Sister Florence Taylor

FEW things in the Hospital have changed more during the last fifty years than has nursing. Many of these changes have occurred so gradually and, one might say, quietly that they have been scarcely noticed; but the oldest readers will agree that this is so. A quotation from a Guy's *Gazette* of a little more than fifty years ago speaks for itself: "Until very recently it was the commonest thing to see the nurse on her knees scrubbing the floors, and it seemed unreasonable to call her away to assist with a dressing. We are glad to say there are to be regular paid scrubbers."

A little more than fifty years ago the first series of lectures was started, and "hints" were given as to the administration of medicines. Thirty-four years ago a Preliminary Training School was established in which probationer nurses were instructed for a period of six weeks before entering the wards.

At the present time the management of the Guy's Hospital Training School for Nurses is entrusted to the Women's Training School Council, and the Educational Committee of the Nursing School.

Six years ago the existing system was instituted in the Preliminary Training School. Twenty pupils enter the School every eight weeks for a period of sixteen weeks. Approximately twenty nurses enter the wards every eight weeks. In the School the syllabus for the Preliminary State Examination is covered with the exception of "Nursing." The sixteen weeks' course is divided into two sections. In the second half the pupils work in the wards from 8 to 10 a.m. daily. At the end of the school course examinations are held, and after a week's holiday successful candidates pass into the wards for a trial period of two months. After this the nurse signs a contract for a further period of three years' training. Candidates holding a degree from a University within the British Empire may complete their entire training in three years. Pupils in the School are now allowed to partake of more of the home life of the Hospital. They use the swimming bath, and the Cottage and the hard court behind the Bacteriology Department for netball. The nineteen-year-olds love to shed uniform and don gym. tunics, and run.

No lectures are now given during the first few months in the wards while the nurses are gaining an introduction to practical ward work, for many will remember with regret their early days of trying to concentrate in the classroom with tired feet and a distracted mind. The first course of lectures is on General Nursing, given by the Sister Tutors. This is followed by lectures on Medical Nursing, Surgical Nursing, Special Subjects, Pharmacology and Dispensing, given by members of the Visiting Staff.

Examinations are held at the end of each course. The Preliminary State Examination is taken during the second year, the Guy's Final at the end of the second year to qualify for "Strings," the Final State at the end of the third year. During the second year, nurses are relieved of their ward duties from 8 to 10 a.m. daily for a period of seven weeks for study, classes and visits to different departments in the Hospital—a herald, one may hope, of the time when all lectures and classes will be taken in "on duty" time.

In 1930 a teaching department was built. This was given by the Governors as a memorial to Lord Revelstoke. The lecture room, study room and Sister-Tutor's office make a most attractive unit and supplied a great need. It is occasionally the scene of an informal dance, debate or bazaar.

The Nursing Staff has increased considerably during the last ten years. This is partly to allow extra off-duty time and partly to meet the demands

A GROUP OF NURSES, 1875.

A GROUP OF NURSES 1910

A GROUP OF NURSES, 1936.

of present-day nursing. New anæsthetics, investigations and treatments require more individual attention. The opening of Nuffield House a year ago increased the staff still further. There are now approximately 280 nurses in training, thirty staff nurses, sixty-six sisters. Much unnecessary domestic work has been taken from the nurse. She no longer cleans the ward brasses or polishes the furniture.

A Guy's nurse who completed her training exactly fifty years ago is at present a patient in the Hospital, and has made some interesting observations. The patients' food, she says, is not in the same category, and she has been much impressed by the daintily served meals. The work in the wards has increased enormously. They are seldom quiet, and it is impossible for them to be so. Fifty years ago a surgical ward had two surgeons, they had fifteen beds each, and that was that!

The patient also considers that modern conditions of life and education appear to enable the modern nurse to cope with the rush of the new conditions as their Victorian predecessors from the Dame's School in the village could never have done.

"Change" day occurs every three months, but in their third year, Head Nurses remain in their ward or department for approximately six months.

The Nurses' Home at present is inadequate. Extra accommodation has been provided in St. Thomas's Street, dwellings in Newcomen Street have been transformed, and most of the night nurses reside at Lancaster Gate.

The usual activities of the Guy's Hospital Nurses' League continue. In addition, there is a Student Nurses' Association of the College of Nursing. The Nurses' Representative Council came into being in 1925. It consists of representatives of each year. The Council meets from time to time in order to afford an opportunity of discussion between the Matron and the representatives of the Nursing Staff on questions affecting the well-being of the nurses. The Council is at liberty to make representations to the House Committee upon any matter of Hospital management in which the nurses are concerned. Also to the Education Committee of the Nursing School upon educational matters.

The Cosmo Bonsor Memorial Scholarship Fund which is being raised by the Nurses' League is growing. The first scholarship to the value of £30 was awarded last year. It is to be used for post-graduate nursing education.

Guy's uniform is still Guy's uniform, but even this has changed somewhat. Grey stockings have added to its attractive appearance and conform more closely to the standard of hygiene taught.

Bodices are allowed some fullness, skirts are considerably higher and collars lower. A new pattern of low collar may be worn if preferred. Outdoor uniform is rarely seen. Times indeed have changed!

Post-Graduate Medicine

By Maurice E. Shaw, Esq., M.D., F.R.C.P.

THE subject of this article is not concerned with the past history or future prospects of the *Gazette* except in so far as this journal has helped (and will, I hope, continue to help) in keeping its readers in touch with the newer developments in the art of medicine. But it would be churlish not to preface my remarks on Post-Graduate Medicine with some congratulatory reference to the Jubilee which this number is designed to celebrate. All Guy's men will join in wishing their journal another fifty years of unbroken prosperity, and will hope confidently for a continuation of the high standard which successive editors (with one possible exception) have miraculously maintained.

In a sense the subject on which the Editor has asked me to write is particularly appropriate. The *Gazette* must number as many doctors as students, as many post-graduates as undergraduates, among its readers. And has not the Treasurer of the Hospital only recently indicated the importance which he attaches to post-graduate medical study by this munificent donation to the University of Oxford? The *Gazette* itself has always tried to provide fare equally capable of digestion by the medical infant as by the more mature organs of the experienced practitioner. That it should have succeeded is no light achievement, for more and more is it becoming recognised that undergraduate and post-graduate teaching are incompatibles which can only to a very limited extent be carried out in one school or institution; and the segregation of post-graduate medical teaching has now been officially sanctified by the establishment of a new Post-Graduate Medical School, financed by the State and drawing its clinical material from the inexhaustible well of the largest municipal hospital service in the world.

The Need for Post-Graduate Study

The necessity for post-graduate study and education is not at once apparent to the student in his undergraduate days. It is hardly surprising that he should fail to recognise in his overburdened curriculum the mere skeleton of a building which he can never live to see completed. A lifetime of study is needed to make it a serviceable structure, and this can only be accomplished by means of continual additions and alterations. Indeed, he will be lucky if from time to time large sections do not need to be completely rebuilt through the necessity for replacing portions of the foundations which have collapsed beyond repair. He may be content to pass his days in a hovel or, with ambition, may aspire to turn his scaffolding into a palace. In either case the resulting building will be a patchwork of many styles. Technique will alter, materials change, and ideas of design be revolutionised. Like the builders of our ancient cathedrals, he need not be dismayed by altering standards and ideals; Norman has blended with Gothic, and Gothic with later styles. So the perpetual student of medicine must ever be building, replacing and adding to the foundations which his teachers have helped him to lay in his days of early training.

Knowledge Not Enough

The first days of the student are spent in the pursuit of knowledge; thereafter he must seek wisdom, for—

> "Knowledge and wisdom, far from being one,
> Have oft-times no connexion. . . .
> Knowledge is proud that he has learned so much;
> Wisdom is humble that he knows no more."

Wise men have knowledge, but few men with knowledge have wisdom; for knowledge can be gathered from books, but wisdom is not to be taught, although it can be learned by those endowed to receive it. We may recall the modest boast of Socrates, who claimed to be the wisest man in the world because he knew that he knew nothing. And perhaps it is the Socratic form of wisdom which is most needed by the doctor—to be aware of his limitations, his defects, and his shortcomings. The wisdom of the doctor comes from humanity, from patients and from colleagues, from friends and from teachers. It is only the unwise who scorn the study of humanity, as the ignorant despise the learning to be gained from books.

Hospital Appointments and the Post-Graduate

The distinction between an undergraduate and a post-graduate is academic, and is merely a question of the possession of one of the degrees or diplomas which confer the privilege of registration by the General Medical Council. There is no magic about the process we refer to as "qualification," and there is no reason to attribute sacramental qualities to an ordeal which recent investigation—confirming the conviction of numberless "failed B.A.'s"—has shown to be endowed with no small element of luck, both good

and bad. Teachers and examiners have so far recognised the defects of our present standards of graduation that they are considering the addition to the curriculum of an obligatory period of service as a house officer to a recognised hospital. This period would be strictly post-graduate in the academic sense, but would, presumably, precede actual registration. Whether or no this desirable reform be ever effected there can be no doubt that "house jobs" are as necessary for efficiency in practice as they are essential for those who would aspire to the higher academic qualifications. Moreover it would be generally accepted that the six months which have been advocated by the various committees which have been considering curriculum reform are a bare minimum; the prudent man or woman will extend this post-graduate period to twelve or eighteen months, and will seek for posts which will afford the type of experience most suited to the branch of practice which it is proposed to follow.

Keeping the Machine Efficient

Post-graduate study ought to start from the moment of graduation and continue throughout professional life. We may compare the doctor to a motor car which, especially if it is expensively produced, may run for thousands of miles without mechanical attention or serious breakdown. But we know that real efficiency can only be maintained by constant and periodic attention to the mechanism. It must be carefully "run in" before it is safe to open the throttle to the full, and thereafter regular overhauls of engine, chassis and brakes must be undertaken if the risk of disaster is to be avoided. So the young doctor, "ex works" and fresh from his exams., must run himself in with hospital and locum work if his powers are to be developed to the full in later years; and continued efficiency will only be achieved by regular lubrication and decarbonisation at one of the many "service stations" now available at hospitals both in London and the Provinces.

The General Practitioner and Post-Graduate Study

My own experience of post-graduate teaching has been mainly among the ranks of the general practitioners, and it is of their problems which I propose largely to write. After all, the other types of post-graduate student, aspiring specialists and candidates for higher examinations, are a small percentage of the whole, and the general practitioners, rightly called the front line troops in the battle against disease and death, are far the most important. It is probable that the idea of post-graduate study makes little appeal to the young man embarking on his first year of practice. Fresh from hospital, well equipped in the theory and practice of his art, confident in his diagnosis and treatment, he may be forgiven if he does not foresee that ten years of practice without contact with the progress of research will find him already a back number, and perhaps as critical of the modern ideas of his newly-joined partner as he was astonished at the ignorance of his seniors when he himself joined the practice. I know that I shall be told that he will read the journals and so keep abreast of current trends and ideas. But will he? Will he have the time? Will he have the inclination after evening surgery, after the last visit, or on his infrequent half-holiday? I am aware that there are some who find time to read two journals a week, and even to mark, learn and inwardly digest them; but these are the exceptions, and I am speaking of the average man for whom family preoccupations, and recreation, cultural and physical, will absorb the larger part of his spare time. For such as these a fortnight a year, or a month every two years, spent in hospital clinics which cater for post-graduate students, is time well spent, and the expense is money well invested. The ward, the out-patient clinic, and the operating theatre can never be replaced by the printed word.

Importance of Reading

I do not want it to be thought that I am discouraging the reading of journals and other medical literature by general practitioners—far from it! For those who have the time and energy such reading should never be neglected, and contact with a first-rate medical library should, whenever possible, be maintained. Library reading should not be confined to the reading of textbooks; indeed, these should rarely be consulted in post-graduate years. Their authors would be the first to admit their limitations. They can never be kept really up to date owing to the time needed for new editions; and fresh ideas, which are frequently controversial, have often to be dismissed in a few words or altogether suppressed. The proper book reading for the post-graduate is the monograph by the acknowledged expert which must be carefully distinguished from the pot-boiling productions of would-be specialists; the latter should be strictly avoided.

There is one form of medical literature which has a certain and limited value, but which must be absorbed with the greatest discrimination—I refer to the commercial advertisements which we find in piles upon our breakfast tables. The chief value of most of these is the revenue which they bring to the Post Office, and their proper (and

usual) destination the waste-paper basket. But they cannot be entirely neglected, for patients will inquire from time to time about some proprietary remedy which has been prescribed for them, and it is as well to have a rough idea of its composition and the disease or diseases which it is supposed to cure. Moreover, it sometimes happens that a really valuable remedy comes to our notice for the first time in the form of an advertiser's "blurb." There is no golden rule for dealing with this branch of literature or for determining the value of the wares which it is designed to advertise. Some remedies are placed on the market as the result of experiments carried out in the research departments of hospitals or University laboratories. These will have had their merits assessed in the medical journals and will be familiar to those whose business it is to undertake post-graduate teaching. Others are the products of the manufacturer's research departments, and the claims for these should be accepted with the greatest caution until thorough trial, by competent investigators, have been published in reputable journals. Well known as these facts may be, I have thought it well to mention them as there is a large, but I hope diminishing, body of medical men whose reading appears to be entirely confined to this class of literature.

Post-Graduate Institutions

Both those who read, wisely and unwisely, and those who read not at all, will need from time to time to repair to some institution for clinical and, possibly, pathological instruction. There is a wide choice of such institutions, but certain general principles should be followed in their selection, depending on the needs of the individual student. As a general rule the old Medical School of undergraduate days should be avoided. The exceptions to this rule are the special courses which many schools now give for the higher examinations, and the annual "refresher," which is becoming a popular addition to the festivities of the annual (or biennial) reunion. At other times the teacher of undergraduate students should not be expected to cater for the needs of the graduate. If he is tempted to do so it is the undergraduate who will suffer.

For those who require general work a general hospital with a post-graduate school attached is the ideal centre, and many such are to be found in London and, for all I know, in the larger provincial cities. These schools are variously organised, and the student will suit his inclinations in his selection. He may prefer the regular classes and organised time-tables which are provided at some, or he may choose the freer atmosphere of a hospital where the routine clinics are daily at the disposal of the seeker after knowledge.

Special Hospitals

Most general hospitals have too little clinical material for successful teaching on a large scale in the special departments, and those whose object it is to study a specialty *only* would be well advised to seek the facilities offered by a special hospital where the beds are exclusively devoted to the specialty concerned. The general hospital can usually offer good out-patient clinics in the special departments, but beds are scarce, and the out-patient clinics are not, as a rule, held more than two times a week. They are excellent for the man who wants a little of everything, but insufficient to meet the needs of those whose object is to make a comprehensive study of the one subject alone.

Study Abroad

Whether special or general work is sought the value of an occasional visit to a foreign centre cannot be overestimated. "These three hundred years," wrote Osler, "the schools of Italy, Holland, France, Austria, and Germany have in turn furnished instruction to the young English practitioners who believed in the catholicity of medicine, and who felt the sharp sting of the remark which associates homely wits with home-keeping youths." But it is not youth only that should travel. At all ages a visit to a foreign clinic will widen the horizon, banish insularity, and strengthen the bonds which unite the members of our craft whatever their race, language or creed.

The Medical Society

Another method of post-graduate study, and one which can be heartily recommended to all medical men, is membership of a medical society. These abound in London, and many of them have as their rallying point one of the large general hospitals. In addition to local societies, there are the branches and divisions of the British Medical Association which devote some of their time to the study of the scientific aspects of medicine.

The temptation for most of us on the evening of the meeting of a medical society is to stay at home and light a pipe, calming our consciences with the comforting reflection that we can read the speeches and discussion later in the pages of the Proceedings of the Society. But personal contact with our fellow workers can never be replaced by volumes of Proceedings which, like the weekly journals, may never be read at all. How many times have I seen great piles of medical journals lying unopened in the doctor's consulting room! Our intentions are excellent, but "the

flighty purpose never is o'ertook unless the deed goes with it." All medical men should join one or more medical societies and make a point of attending at least half the meetings in the session. The medical society is a place where we can confess our scientific sins and gain encouragement and inspiration from the mistakes of our seniors; where we can pool our experiences and guard ourselves against the dangers of narrowmindedness; and where we can be reminded that others besides ourselves share our ideals and aspirations, our successes and our failures.

The Future

There is no doubt in my own mind that the need for post-graduate study by practitioners of all types is becoming increasingly urgent. For not only is medicine progressing with a rapidity which must defy the most agile and receptive brain to keep pace with it, but the public, our patients, are daily becoming more knowledgeable on matters scientific, and therefore increasingly sceptical of the specious explanations with which we are apt to conceal our ignorance. It is true that a doctor can still to a large extent deceive his patients with Latin words and out-of-date physiology. But each generation will find its patients better informed, more critical, and less inclined to be put off with phrases which are nothing but the heritage of witchcraft. Magic and Medicine must at last be divorced, and Medicine must take a new partner—Science. The doctor of the future will no longer be able to trade upon the ignorance and credulity of his patients. In the past, personality, sympathy and understanding have been the principal qualities which have made for success in medical practice; the doctor's scientific equipment has been unimportant in comparison with these simple human endowments. But, although these qualities will always be needed by those who play the role of family medical adviser, the time is passing, if it has not already passed, when they alone will suffice. In a world of scientists, the doctor will make poor showing unless he can keep his scientific knowledge and learning well in advance of that of his patients. The need for post-graduate study is growing and will increase. The wise man will not neglect his opportunities.

On Pædiatrics

By Dr. H. C. Cameron, M.D., F.R.C.P. (Editor, 1906)

THE Editor has asked me to write something on the Children's Department. Some years ago there was an interesting discussion in the *Gazette* as to the relative value in general practice of the knowledge gained in the different departments of the Hospital. A number of old Guy's men contributed lists, which placed the departments in numerical order, indicating their opinion upon this point based upon their experience in practice. To the Children's Department the results were gratifying, because in all of these lists it occupied a foremost place. There was some difference of opinion about other departments, but all were agreed that some knowledge of children and their ailments was very necessary in ordinary general practice. Indeed it would be strange if it were otherwise. In many practices the proportion of children attended reaches 40 or even 50 per cent.

It is true that children as a whole are possessed of great powers of recovery and that disorders which may be expected to proceed steadily to a fatal termination are only very rarely encountered. In practice, disaster only seldom follows on a policy of inactivity, although the anticipated recovery when it comes may still leave the nature of the illness in doubt. Nevertheless, an inability to define precisely the nature of a child's illness and to control its symptoms is apt to be resented by anxious parents, persons who might be comparatively tolerant of such a situation if the patient were an adult relative. Every mother is something of an expert in the management and treatment of her child, and unless the doctor is used to handling infants and young children in health and disease, any lack of experience is abundantly evident to her critical eye. Only by real knowledge and understanding of the situation can unquestioning confidence be won. This is especially true of the minor disorders of the child. Any well-trained doctor, even with little pædiatric experience, can direct the situation when a child has an empyema, shall we say? or an intussusception. Of such things the mother knows nothing, and she then leaves the direction of affairs entirely in the doctor's hands. But in practice classical diseases of this kind are comparatively seldom encountered. We meet with few children with diseases, but with many children out of health. To appreciate the nature of the functional disturbances of children's

health, to avoid confusing them with gross organic disease, to detect their causes and origins and to control their symptoms, is the daily and immensely difficult task of many general practitioners. It is a task for which their hospital training only partially fits them.

In this country pædiatrics is a subject profoundly neglected. The latest recommendation of the General Medical Council that I have seen recommends one month's attendance in a children's hospital or in the children's ward of a general hospital, a time insufficient to follow a single case from beginning to end. One might as well set a boy to work in the garden during the month of November and at the end of that time expect him to play the gardener's part. That with insufficient opportunity and experience as students many practitioners ultimately achieve a high standard of skill in the treatment of children is not to be denied. A doctor's training, if on general lines it be a good one, is a priceless asset for the study of children both in health and disease. A doctor learns infinitely more from the study of his own children than the ordinary parent can hope to learn, and the intimate knowledge which he gains from contact with his own is often the beginning of a real understanding and a real power to help the children of other people. In all this part of his work, so difficult, so important and so liable to meet either with gratitude or with bitter criticism, he would be immensely helped by a real training in pædiatrics.

To-day in this country pædiatrics is still regarded as a special subject, forced to compete with other specialities such as ophthalmology, laryngology, urology or proctology, for some fragments of the student's time and attention. I do not know whether we are wise or unwise in encouraging the public to believe that medicine as a whole can be subdivided into specialities, that we must study diseases of the lungs in one department, diseases of the heart in another, and diseases of the nervous system in a third, and that it is not likely that any physician can attain a competent knowledge of all three. There are many advantages in dividing teaching and practice in this way, and there are also many obvious disadvantages. But there is one great natural line of cleavage which divides general medicine into two parts. There is that part of medicine which deals with the disorders of decline and decay and degeneration which is occupied, a little unsuccessfully perhaps, in the attempt to delay the inevitable fall, or at most to mitigate the discomforts and sufferings which follow upon the establishment in the adult of the processes of disease. And there is that part of medicine—pædiatrics—which endeavours by every means in its power to promote the rise, to develop a sturdy physique, a high resistance to infection, and a well-controlled nervous system. It is for pædiatrics to deal with all the problems connected with heredity, environment, nutrition, education and physical exercise, and with the acute infective illnesses of childhood. From this point of view it is strange to note the present-day insistence upon the importance of the preventive aspect of medicine, combined, as it is, with so great a neglect of proper pædiatric studies.

Work upon these aspects of disease, both in research and in practice, must always be relatively fruitful. The farmer in his wisdom concentrates all his care upon his young livestock. It is on his seedlings and nurseries that the gardener spends his labour. The grown beast, the mature plant, are too little responsive to his tending, and he knows only that the vigour and health of their maturity depend upon his treatment of their immaturity. Once grown, to a great extent they must take their chance.

I think that in the years to come we shall have learned this lesson, and that the staff on the medical side will come to consist predominantly of pædiatricians, with only a few of the other sort. Indeed, I think that at the present time most of my colleagues are at heart pædiatricians. Dr. Campbell, I am sure, would be loth to abandon the care of children with heart disease. It is there that he can achieve a success which is some compensation for the depressing statistics of degenerative heart disease. Dr. Gillespie, I have no doubt, in his Child Guidance Clinic has a sense of achievement which is denied to him in his work with the adult mind in disorder. The child is a creature going uphill, ascending to greater heights of strength, stability and control. The elderly are going downhill, losing ground. The scenery through which they pass is much the same, but the direction of the journey is different. Symptoms which would be of grave significance, and which are apt to prove inveterate in an adult, are often of trivial import in the child, because they are the expression only of some temporary backsliding in a progress which is otherwise continuous. If a grown man begins to develop a habit of twitching the end of his nose, or of appropriating the fountain pens of his neighbours, the outlook would be very disturbing. With the child, disorders of conduct of this sort are transitory and have an importance only because they call attention to some underlying strain or stress in the child's life which may not have been perceived before. The child is so responsive to help, he carries with him so great a tendency to

health, that our work is as much to direct his recovery as to control his disease.

England is now almost alone in its neglect of pædiatrics. In the United States, in Germany and in Scandinavia, pædiatrics takes its place with general medicine, surgery, midwifery and diseases of women as one of the major subjects of the curriculum. I think that with us such an arrangement is bound to come. The Government and public bodies of all sorts are intimately concerned with pædiatrics. Infant centres, school clinics, fever hospitals, L.C.C. hospitals, call for pædiatricians, and the number of young doctors whose primary interest is in pædiatrics is very small. That interest has not been aroused. In their hospital education the important things seem to have lain elsewhere.

At Guy's the claims of pædiatrics have always been sympathetically considered, but for one reason or another plans for an adequate Children's Department have never matured. When I was appointed Physician to the Department in 1911, Sir Cooper Perry and I spent much time and thought on the preparation of plans for a fine department, which was to house 80 cots in wards to be erected on the top of Hunt's House. The plan was perfected in every detail and was approved by King Edward's Fund. Then, as now, however, we were told that, as a preliminary step, it was necessary to add to the Nurses' Home. That was as far as the scheme got. The Nursing Home was enlarged, the war broke out, and the Children's Department was left unbuilt. Instead a small room above the old Clinical Wards was fitted up and served for some years until the Colonnade of the old Museum Building was adapted for the reception of seventeen cots. This ward faced north and had no satisfactory cross-ventilation, but it abutted on the Park and provided the least unsatisfactory ward I have worked in. I was told that I must have patience and that it was hoped that a new paying block, when it was built, would house a new Children's Department on its top floors. Thanks to the magnificent gift of our Treasurer, the paying block has now been built, but with no Children's Department. Instead, the little ward had to be destroyed to provide the site for Nuffield House, and I am left, perhaps the only person in the Hospital, whose gratitude to Lord Nuffield is somewhat qualified. The little crowded ward which we now occupy is quite unsuitable. Some time, but not in my time, an adequate department will be provided. I think the clamourings of my successor are more likely to be successful than mine have been, because time is on his side. In future an increasing emphasis will be laid on the need for pædiatric studies and pædiatric teaching.

Guy's and the children both deserve the best possible Department. It can only be a question of time before it is provided.

The Little Things That Matter

By Leslie George Housden

"ELEPHANT and Castle—all change!" cried the porter.

I came back to earth with a start.

"I have no change," I said. "I have just refilled Guy's empty Treasury chest."

"So have I," said the porter. "The beggars let it get very empty, didn't they?"

"Very likely," I retorted, "but see how seldom they appeal. Once in two hundred years is hardly the frequency of a confirmed beggar."

"Two hundred years my foot," was the quaint comment of the porter. "What about the Bicentenary Appeal twelve years ago?"

"Twelve days ago, you mean," I corrected him. "This is the Bicentenary Appeal."

He looked at me queerly and muttered something about having wondered what had become of them all since Bedlam was turned into a war museum. Then, turning abruptly, he passed down the train, shouting, "Elephant and Castle—all change!" and I continued my journey to London Bridge.

As I entered the Hospital I became aware of a sense of strangeness. The usual galaxy of cars adorned the Quadrangle, but now Rolls-Royces alone formed the bodyguard of the immortal Founder. All others stood humbly round the margin of the court, turning their faces to the wall. The men and women, too, seemed strangely unfamiliar. True, Whitbread still stood guard at the entrance to the Colonnade, but even he had powdered his hair.

Of their own accord my feet carried me to the *Gazette* office. A stranger sat at my table—a comely stranger, young and with a radiant tie.

"Who are you?" we asked in concert, and, as though we had rehearsed the affair, answered in unison, "The Editor of the *Gazette*."

" We must ask you to give place," I said with editorial politeness. " We are working on the Bicentenary Number."

" And I on the Jubilee Number," replied the young man with a smile. " Where have you been these twelve long years ? "

We shrugged our shoulders. " Passim," we remarked airily, and passed out. No need that he should know how we had so recently come back to earth with a start.

And after twelve years ! Could it be true ? Yet must it be full twelve years that had reduced us from an editor to a stranger. What changes could not have happened in that time. The very last of our contemporaries must have become an " L.S.A."

Passing through the Colonnade the sense of strangeness increased. Groups of young men stood chatting as of old. They looked the same, but were different. Notices fluttered on the notice-boards. They should have been different, but were the same.

In the Park, more changes came to light. Beyond the greenest of lawns rose a noble structure of red brick and windows. What a change was here ! How different from the Bermondsey and Rotherhithe War Memorial Ward ! How wonderful for the Borough children ! What a triumph for Hector and Lysander and such great names as these.

" Can I help you ? " smiled a nurse, as the swing-doors closed behind me.

" I just popped in to look at the babies," I admitted.

" There are no babies here," came the stern reply. " None at all."

" No babies ? Is this not the Children's Ward, then ? "

" This is Nuffield House. No babies ! "

" All grown-ups ? "

" All."

" Well, but what have you done with the babies ? They do still have them in the Borough, don't they ? " I asked, somewhat anxiously.

" I believe they do. But we don't keep them here. This is Nuffield House. It cost eighty thousand pounds. It is not for babies."

" I'm sorry. Eighty thousand pounds. How wonderful ! Could you tell me, please, where to find the Children's Ward ? "

The native kindness of the Guy's nursing staff reasserted itself.

" I'm not certain, mind you, though I know there is a Children's Ward somewhere. It might be in Hunt's House—though not this end, of course. That's the new Out-Patient Department. Forty thousand pounds."

" Forty thousand pounds ! How munificent ! You think I might try Hunt's House, then ? "

" Try Clinical. I heard there were some in Clinical."

Ascending in the lift, I felt once more at home. No change here. The deep-sea gloom of mediæval splendour softened, as of old, the prison-like austerity of the stair-heads. But we were going up. My spirits soared. A load, of an appropriate number of thousands of pounds, lifted from my soul. The children no longer lived over those abominable anatomy tanks. " Up, the Babies," I murmured, and leapt lightly from the lift. Quickly I pushed open the door of Clinical—and gazed with amazement at the children. One little dear, with a three-weeks' beard, called the nurse, and the hunt was up again.

" I was told this might be the Children's Ward."

" It might—but it isn't. This is Clinical."

" Oh, I'm sorry. You don't know anything about the babies then ? "

" Indeed I do. They used to be along here, but they disturbed the men. I believe they shifted them into Bright."

I thanked her and crossed to the bare, dusty dreariness that was Bright, emptier than the very treasure-chest itself. The wind blew mockingly through keyholes and under doors. Ghosts of departed R.M.O.'s jingled their change as they fluttered out of sight. Nought but memories and mice remained in this deserted home of the greatest of all " Charity "s.

Shuddering, I turned to hurry back to the haunts of men, when a querulous whine forced its way under a farther door. I stopped. It was the whine of no ordinary wind. The sound was well-remembered—the cry of the bottle-fed calling for its gripe-water. I strode to the door and pushed it open. A few small cots and beds were ranged along the walls of a big, bare room. I had arrived after all.

" We've only just popped in, Sister. May we look round ? "

The " we " did it ; Sister put on her cuffs.

" I'm afraid it's not very tidy," she said. " We've only just moved in. Isn't it lovely to have a great, big ward like this all to ourselves ? "

" Lovely, indeed ; and the beauty of moving into a fresh ward is that it will have been thoroughly modernised for you. That will lighten the work, won't it ? "

" On, no ; they've not been able to make any alterations—that would be asking too much. As it is I'm afraid we shall have to have one or two things that will cost money."

" Twenty thousand pounds ? "

"No! But we really ought to have just one wash-basin in the ward, and I expect that will cost at least thirty-five shillings. If only we could get a few pounds this could be made such a splendid ward."

"Well, how is it that you can't get a few pounds? Everyone else talks in thousands."

"But not for the Children's Ward. There is so much that the adults need."

"Of course. And as in such a little time the children are old enough to transfer to the general wards, it doesn't seem worth bothering about, after all."

"I don't think that. I suppose it's really a question of what matters most."

I glanced round at the small heads adorning this ugly ward.

"My mother always told me," I said, "it was the little things that mattered."

Students and Politics

By H. L. Eason, Esq., C.B., C.M.G., M.D., M.S.

VOLUNTARY Hospitals, being dependent on voluntary subscriptions, are vulnerable to popular criticism. Indeed, it is hardly possible to publish anything about a hospital such as Guy's without rousing criticism in one quarter or another. Silence about our good works, unless stories of the most slushy sentimental type are published is the safest policy. And of all publicity that concerning the students in their happier and less responsible moods is the most damaging. One realises, of course, that for the purpose of a hapless youth arraigned at Vine Street the occupation of "medical student" is as useful and as hackneyed as that of "actress" for any light-of-love that has got into trouble with the police. Still the fact remains that in the case of medical students the sins of the children are visited upon the fathers, to wit, the authorities of the Hospital, with damaging effect.

In looking at a copy of the *Guy's Hospital Gazette* for April, 1878, I find the following editorial comment under "Notes of the Month"—

> A correspondent to the *Daily News* writes thus: "I have a nephew who is a medical student. He informs me that he received a circular requesting his attendance at the meeting in Trafalgar Square. He went there for 'a lark,' and met many of his fellow-students, who were there for the same purpose, without any political feeling. He said it was rare fun, he thoroughly enjoyed himself, and helped to carry the Turkish flag to the Admiralty. This young man has been plucked over and over again, as, according to your paper, appears to be the case with an immense number of students. This is not surprising, for young men who take pleasure and waste their time in 'larking,' as many medical students appear to do, can have but very poor brains. They ought to be carefully looked after by their parents."
>
> The above letter refers to the meeting of medical students in Trafalgar Square in the early part of the month. We are bound to confess that we believe that the same feelings that actuated the correspondent's nephew, incited many other students to "demonstrate" for the honour (*sic*) of their country. We cannot deprecate too strongly the practice of medical students mixing themselves in such affairs.
>
> It does their country no good, and only brings them into disrepute. Ungentlemanly conduct and "bear fighting" only tend to perpetuate the belief in the existence of that class of student depicted by Charles Dickens in "The Pickwick Papers." Demonstrations for, or against, any object can have no weight when got up by the "rowdy" element of the London hospitals.

For the information of a younger generation I may mention that this was the time of the Russo-Turkish War. Previous to the outbreak of the war Mr. Gladstone had written a pamphlet upon "Bulgarian Horrors and the Question of the East," referring to alleged atrocities committed upon Bulgarians by the Turks. He sent a copy of this to the Queen, who, upon reading it, expressed to Mr. Gladstone her horror, approving Mr. Gladstone's pamphlet, which to her mind seemed excellent. When, however, Russia, on behalf of the Bulgarians, declared war upon Turkey, the sympathies of both the Queen and a large portion of the British public rapidly veered over to the Turk, and for a while Mr. Gladstone was one of the most unpopular men in the kingdom.

The sympathy of the students was evidently on the side of the Turks, and had an unfortunate sequel, as will be seen by the following correspondence. This I have unearthed from a collection of letters of historic interest in the archives of the Superintendent's Office, and is now published for the first time. It is to be remembered that Mr. Gladstone was at that time a Governor of the Hospital.*

* Mr. A. C. Gladstone, a grandson of Mr. W. E. Gladstone, and himself now a Governor of the Hospital, has kindly told me that he has no objection to the publication of these letters, written now nearly sixty years ago.

73, Harley Street.
February 25th, 1878.

Sir,

In the *Daily News* of Saturday last, p. 5, I perceived a letter which alleged that, a few days before, there had been posted in Guy's Hospital a notice stating that, as on Thursday last—

"The traitor Gladstone will, or thinks he will, hold a meeting in favour of Russia at the Agricultural Hall. Shall this be? No, come early and get your seats, and treat him as his treachery deserves."

Not perceiving, in the same paper of to-day, any notice of the matter, I address you officially to inquire whether the statement is true, and, if it be so, what measures the authorities of the Hospital intend to adopt with regard to it.

I have the honour to be, Sir,
Your faithful servant,
W. GLADSTONE.

The Treasurer of Guy's Hospital.

Treasurer's House,
Guy's Hospital, S.E.
February 26.

Sir,

In reply to your letter of yesterday's date I have the honour to inform you that no such notice as that described by you has been posted in any public part of this Hospital. No notice of any description is allowed to be put up without the sanction of myself or the Superintendent, and I need scarcely say that we would never have allowed any such scurrilous statement to find a place on our notice boards.

Your letter now under acknowledgment was the first intimation I had of this notice, and I have desired strict inquiries to be made as to whether there is any foundation for the letter in the *Daily News*.

I have the honour to be, Sir,
Your faithful servant,
(*Signed*) ED. H. LUSHINGTON,

The Rt. Hon.
W. E. Gladstone, M.P., etc.

73, Harley Street.
March 9th, 1878.

Sir,

I am obliged by your letter of the 26th ult.

As it has not been followed by any further intimation as to the result of the inquiry which it promised, I am induced to suggest for your consideration whether some contradiction ought not to be inserted in one or more of the public journals, to rebut a statement so injurious to Guy's Hospital and its authorities as that which has formed the subject of our correspondence.

I have the honour to be, Sir,
Your faithful servant,
W. GLADSTONE.

E. H. Lushington, Esq.

Should an inquiry be still in progress, I beg you will not take the trouble to notice this letter.

74, Eaton Square, S.W.
March 11th, 1878.

My dear Lushington,

If the matter were my own, I should take the view that you have taken, and not consider it worthy any further notice at this distance of time. But perhaps you may think it desirable and, in compliance with Mr. Gladstone's letter of Saturday, to write a line to the *Daily News* to the effect of your note, that is to say, that having seen the original letter in the *Daily News*, you had ascertained at the time that no such notice had been placed upon our Boards; that no notice of any description is allowed to be put up without your sanction or that of the Superintendent, and you need scarcely say that neither you, nor he, would ever have allowed any such scurrilous statement to find a place there; that your inquiry had disclosed that some such ribald notice as that described by the writer in the *Daily News* was stuck up in one of the rooms, but was immediately pulled down and torn up, but that the author of it had not been discovered.

You might say that you made this communication that there might be no doubt in the minds of any of their readers as to the facts of the case so far as they are known to you or to the authorities of Guy's, and you might send a copy of your letter to Mr. Gladstone.

Believe me, yours very truly,
CARDWELL.

E. H. Lushington, Esq.

It is interesting to note that Mr. Gladstone was not to be put off by the Treasurer's rather evasive reply, and returned to the charge. Mr. Lushington was at that time Treasurer of the Hospital, and Lord Cardwell was the President.

Then, taking a leap of fifty years, in 1926, in the General Strike of that year, the students, in response to the call of the Government for assistance, took their share in the preservation of the essential services of the country, particularly in the unloading of foodstuffs at the docks in the neighbourhood of Guy's.

Their action in this respect resulted in the following letter :—

Transport & General Workers' Union,
Transport Hall,
Lower Road, S.E.16.
May 15th, 1926.

Dear Sir,

I am instructed by the Strike Committee operating from this centre, to protest most emphatically against the action of the students of Guy's Hospital, in *black-legging* during the General Strike, and at the same time point out the serious effect it will have on voluntary contributions, street and workshop collections in this district. Our people have very long memories, and will abstain from assisting the Hospital when you are appealing for funds. My Committee quite appreciate the fact, that from the Students' point of view it was only a "Rag." But would strongly point out, it is a matter of Bread and Butter to us. If there is any other reason we should be very pleased to hear of it.

On behalf of the Strike Committee,
F. BUCKETT,
Secretary.

To this the following reply was sent :—

May 19th, 1926.

Dear Sir,

I beg to acknowledge your letter of May 15th, which I have placed before the Governors of this Hospital.

I am instructed by the Governors to inform you that, in their opinion, you entirely fail to appreciate

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the position of the Hospital and of the Students during the recent Strike.

During the Strike, the Hospital remained open day and night with its full service in every department, for the treatment of any person, striker or non-striker, unionist or non-unionist, who might require its assistance. No qualified medical officers, and no students whose services were required for the ordinary work of the Hospital, were withdrawn from duty.

You are probably not aware that, in a large Medical School attached to a Hospital such as Guy's, there are a large number of students who are not required or employed for the actual work of the Hospital. These students are free agents, and are not under the control of the Hospital as regards their private or public actions.

A number of them, no doubt, in common with the rest of the population, responded to the Government's appeal to assist in carrying on those services which are essential to the community during a General Strike, and for their work in this connection they have earned the gratitude of the public at large.

Even if your members decide to withdraw their support from the Hospital—and this support is entirely voluntary on their part—the Hospital will continue, in the future as in the past, to treat, without any distinction, all persons, whatever their political or social views, should they, or their dependants, require the services of the Hospital.

Believe me,

Yours faithfully,

HERBERT L. EASON,
Superintendent.

The moral to be drawn from this correspondence is that in a time of national emergency anybody connected with the Hospital should do what he can to assist the Government of the day if it calls for his help. On the other hand, it will be seen from the two sets of letters, fifty years apart, that if in any circumstances the students take any action in a political or social dispute, the harm they may do to the Hospital may outweigh the services they render to their cause.

The public will never understand that the authorities of the Hospital have no control over its students outside the Hospital gates, and they therefore visit its wrath upon the Governors as the guardians of the students.

The purpose of this article is to bring home to students that, just as the Hospital admits all patients without distinction of race, creed or politics, so the Hospital, its nurses, and its students should have no politics in an organised or public sense. Any political or social bias shown by the Hospital or anyone connected with it inevitably harms the Hospital, and may damage the public support and goodwill upon which it depends to carry out the intentions of the Founder.

Confessions of an Editor

By Dr. C. P. Blacker

WHEN I was about to embark on the appointment of Clinical Assistant, I was approached by the retiring Editor of the *Gazette* and asked to take his place. I did not in the least want to be Editor of the *Gazette*. I knew that the series of appointments on which I was embarking (or hoped to be embarking) would keep me quite busy enough, and I also had a few interests outside the Hospital. What, I asked, was supposed to be the function of the *Gazette*? Was it primarily intended to assist the medical, surgical and dental education of its readers, or was its main object to keep Guy's men in touch with their old Hospital? What was its relation to the *Guy's Hospital Reports*? Who started it, and what was in the mind of the gentleman or gentlemen who set this literary ball rolling? Were any rules or principles or articles laid down for the guidance of Editors? What latitude had the Editor in writing the Editorials? Was he subjected to a censorship?

To these and other questions I received very nebulous replies. Most of the teaching hospitals, I was told, had journals—some fortnightly, some monthly—edited by students or people doing house appointments. Guy's must therefore have one. The *Gazette* was read, I was informed, by very large numbers of old Guy's men who were, in the Imperial sense, very far-flung. The retiring editor took his literary mission rather seriously. The Guy's spirit, he said, was a wonderful thing. It was the product of the unique merits of the Guy's teaching, and of the Hospital's pre-eminence in the world of sport. What, I asked, was the traditional view about the unique qualities of the Guy's teaching? Like all manifestations of *esprit de corps*, he said, the Guy's spirit was something elusive and difficult to define, but nevertheless very real. The chief formative influences were the camaraderie between the students and the teaching staff (had I not noticed how splendidly the Staff supported the Hospital football teams in their matches), the spirit of self-reliance which characterised the man from the Dominions in contrast to the sheep-like home-bred product, and the responsibilities which, at an early stage in his medical education, were placed upon the shoulders of the Guy's student. Anyhow, said my informant, I would have to attend Guy's dinners and other functions, if for

no other purpose than to gather material for editorial notes. I would quickly get the hang of the Guy's spirit, if I had not got it already, after I had listened carefully to the perorations of a few after-dinner speakers.

I refused to take on the job.

A fortnight later I was approached again, this time by two people. I was told that there had been a committee meeting, and that the subject had been fully discussed. Various arguments were launched at me, and I eventually yielded on one condition: that I should be free to say more or less what I liked about the Staff. Members of the Senior Staff of the Hospital had, I thought, been treated in the pages of the *Gazette* with an excessive deference. Some of these personages, I had noticed, had weaknesses which seemed to be better understood by their colleagues than by themselves. While the Residents' plays had a salutary effect, they were said not always to be attended by those most likely to benefit from them. It was, moreover, axiomatic that the system of voluntary teaching hospitals was beyond reproach. It was because of this system that English medical education, like the English weather and the English cooking, was so immeasurably superior to the comparable products of all other countries. (This I had learnt from an after-dinner speech of a very eloquent member of the Guy's Staff.) No right-thinking man, least of all an editor of the *Gazette*, should dispute the excellence of the voluntary system. The Guy's spirit had, after all, been produced by it.

That the voluntary hospitals were on balance good and worth trying to preserve seemed to me fairly well established; yet there was a feature about them, or rather about the task of maintaining them in the face of the ever-growing financial difficulties, which, at that time, I did not like. There is something impressive and even awe-inspiring about the efficient working of big and complex human organisations. When being taken over factories in which were manufactured commodities sold in a competitive market, I had been disquieted by the thought that so much efficiency, skill, co-ordination and organisation were ultimately dependent upon the results of a system of advertisement which was misleading and insincere. A hospital is built up in an elaborate hierarchy with at one end the charladies, laundresses and ward-maids, and at the other the matron and superintendent. Yet this admirably planned and smooth-working machine is ultimately dependent on the generosity of a group of subscribers. To extend this group and to include within its orbit, by every device of insinuation and flattery, the richest and most august personages, becomes the most delicate and rarefied function of hospital policy. Who are the most successful negotiators of this policy? The most efficient manipulators of the forces of wealth- and rank-snobbery. The activities of clinicians, surgeons and research-workers, of the host of magnificent women and of scientifically trained persons whose combined labours make up the huge joint enterprise of a voluntary hospital are, in the last analysis, at the mercy of the charitable inclinations of a group of outside people wholly removed from them in interests and mode of life; and the larger the proportion, within that group, of plutocrats, peeresses and members of Royal Families, the longer can the wolf be kept from the door. Fortunate is the hospital which has on its staff persons with easy access to Royalty and to the drawing-rooms of the rich. Worldly considerations may compete successfully against scientific, especially when animated by a spirit of service to a loved institution. At least they seemed to me to do so in certain members of the Senior Staff. But, looking back on my frame of mind when I undertook the editorship of the *Gazette*, I have now no doubt that I exaggerated the importance of these psychological by-products of the voluntary system.

It was easy enough, I soon found, to pad out a number of the *Gazette* with reports of lectures delivered in the Hospital by members of the Staff, and by the routine reports of cricket and football matches, examination results, etc. But to go on doing this was to incur the perennial charge that the *Gazette* was dull. The chief difficulty I found to be the summer months, especially the holidays—and the Editorial articles. "What the devil shall we put in 'Passim' this number?" was the recurring question which I used to put to the noble man who filled the rôle of Assistant Editor. After you had offered congratulations to everyone you could think of to congratulate, and announced a few new appointments, you had only filled about a quarter of a column. In the summer months the Staff were mostly away on holiday, and the place was half-dead.

My attacks on members of the Staff soon made me unpopular. Various incidents occurred which do not bear narration. There was one episode which I much regret. I had always intended to specialise in a certain branch of medicine, and was influenced in going to Guy's rather than to another hospital because of the high reputation of the specialist in that subject at Guy's. Unfortunately, the man in question never came to the Hospital (at least I never saw him there), except to give a course of lectures at which attendance was compulsory. These lectures,

doubtless wrongly, I considered bad, and I rebelled at having to attend and sit through them.

The time for his retirement came when I was Editor of the *Gazette*. He gave a valedictory address to a packed audience of students and Staff who had come out of courtesy. It was received with prolonged and tumultuous applause. Unfortunately I regarded the valedictory address as no better than the lectures, and I was irritated by what I regarded as the uncritical nature of the reception it had been accorded. In the next issue of the *Gazette* I relieved my feelings by writing an ironical summary of the address. I now realise that my language was discourteous and that the tone of the summary was in bad taste, but I felt strongly about the matter at the time, and did not see why I should depart from my principle of refusing to throw what I considered undeserved bouquets at members of the Staff. I was then, moreover, unaware of the very valuable services which, long before my time, the man in question had performed for the Hospital.

At lunch on the day following the appearance of that issue, I was greeted, on entering the College dining-room, by a chorus of execration from the table habitually occupied by members of the Senior Staff. I was quite ready for this, and, being rather worked up at the time, went up to the table and said that I had never wanted to edit the damned *Gazette*, and if they did not like what I said in it they could write and complain to the *Gazette* Committee; if the *Gazette* Committee asked me to resign, I would do so with alacrity, not because I minded in the least what they (the members of the Staff) thought, but because the job bored me and took up my time. As for what I had said in the last issue, I stood up for myself, and said that if they wanted someone who would butter them up when they gave bad valedictory or other addresses, they could find someone other than myself. Though I was rather pleased with myself at the time, I am now thoroughly ashamed of the exhibition, and I think it speaks well for the forbearance of the people round that table that they made no complaints. My punishment was reserved for a later date.

About six months after this episode, I attended some public function—I think it was a Hospital dinner—at which was present the author of the valedictory address. He had a reputation for being a man of charm and generosity and for being a great gentleman. He proved this conclusively so far as I was concerned on that occasion, for he came up to me in the most friendly way, though I had never in my life spoken to him, shook me by the hand, and made inquiries as to how I was getting on and what I was doing. My guilty conscience almost deprived me of speech, and I very nearly apologised there and then for what I had written about him!

I recall difficulties with reviewers. I saw little point in the *Gazette's* Review column. It was usual in those days for the Editor and Assistant Editor to have first pick of the books for review, and to hand on the ones they did not want to their friends or to some member of the Staff. It was an almost impossible job to extract the reviews out of some of these, and when, in response to several reminders and requests, they were finally received, they were not always as thorough as might have been wished. I felt that the chief object of the Review column was to keep students informed of books likely to be of use to them, and old Guy's men of books written by other Guy's men. The *Gazette* could never compete in this field with the good medical weeklies whose sub-editors can pick the ablest reviewers in the country.

The correspondence column was also a source of preoccupation. In the same way that there usually attend the meetings of professional and learned societies a few regular habitués who insist on all possible occasions upon rising and expressing opinions of no interest to anybody, while the really competent people sit fast in contemptuous and bored silence, so do most periodicals have a small group of readers who seem to have nothing better to do than to write letters to the Editor drawing unfavourable comparisons between the present and the past, or else expressing stereotyped opinions upon any controversial subject which may be raised in the paper's columns. Letters to the Editor from these sources were usually quite welcome in the *Gazette*, because of the difficulty in finding anything to include in the correspondence column; but there were occasions when we exercised the Editor's prerogative of refusing to publish. The liveliest correspondence arose on the occasion of the General Strike. If my memory serves me, the Secretary of the Transport and General Workers' Union wrote a letter to the Governors of the Hospital protesting against the action taken by certain students of the Hospital in "blacklegging," and stating that their conduct would have a serious effect on local subscriptions to the Hospital. The Superintendent wrote an effective yet conciliatory reply, and the controversy died a natural death, leaving no unpleasant aftermath.

May I take this opportunity of expressing the hope that you and your successors will find, among your contemporaries at the Hospital, many persons with literary inclinations who will ungrudgingly place their talents at your service.

Dickens's Medical Students

By T. B. Layton, D.S.O., M.S.

EXCEPT for a weird figure in a gruesome tale, the only medical students in Dickens's works are those in the *Pickwick Papers*. Two appear early in the second volume, when the Pickwickians at Christmastide are paying their second visit to Dingley Dell. We read of them next at the party to which Mr. Pickwick and his fellow travellers were invited to meet 'a few medical fellows that night.' Although but two chapters are given up to these characters, they are so clearly drawn that we know them intimately when we come across them again as qualified medical men in the last six chapters of the book. It is one of the wonders of this extraordinary work that the youthful Dickens could in so short a time and in so effortless a manner depict for us two figures that remain for all time, and place in the background some half-dozen others that are sketched in as vividly though less fully.

We do not know the names of all 'the medical fellows' at the party. We are certain of the hospitals of only two. Mr. Robert Sawyer, the host, was a Guy's man. We learn that from his conversation with Mr. Pickwick as the house party at Dingley Dell was breaking up :—

"I wish you'd come and see me," said Bob Sawyer.

"Nothing would give me greater pleasure," replied Mr. Pickwick.

"There's my lodgings," said Mr. Bob Sawyer, producing a card. "Lant Street, Borough; it's near Guy's, and handy for me, you know. Little distance after you've passed St. George's Church—turns out of the High Street on the right hand side the way."

Dickens knew it well. It is the street in which he had lived as a boy while his father was in the Marshalsea. Often must he have left that gloomy building after parting from that jovial soul to walk down the High Street past the church with that profound depression of the spirits that is possible only to the young and that is reflected in his ironical description :—

There is a repose about Lant Street, in the Borough, which sheds a gentle melancholy upon the soul. There are always a good many houses to let in the street; it is a bye-street, too, and its dullness is soothing. A house in Lant Street would not come within the denomination of a first-rate residence, in the strict acceptation of the term; but it is a most desirable spot nevertheless. If a man wished to abstract himself from the world—to remove himself from within the reach of temptation—to place himself beyond the possibility of any inducement to look out of the window—he should by all means go to Lant Street.

It is one of those streets in the Borough which it is still possible to envisage as it was one hundred years ago. Gloomy it is as one enters it 'on the right hand side the way.' High buildings which are of recent date and are devoted to commerce make it appear narrower even than it was, but after some hundred paces the factories and warehouses give way to a row of small houses on either side. That on the left is comprised of some four only; beyond them the building line has been set back and the road thus widens. Those on the right extend for the rest of the street and must look very much as they did when young Dickens lodged there. That they will not do so much longer is suggested by certain baulks of timber propping up some of the fronts that threaten to fall forward. No. 53 is named "Dickens House," and tradition therein states that it was in the top back room of this that he lived while his father was in the Marshalsea. We suspect that this was not so. We feel almost certain that in describing the party Dickens had a mental picture of the house where he had lodged. No. 53 is the one house in the row that will not fit it. As we read of 'the preparations for the reception of visitors' or of Bob Sawyer's 'interview with his landlady' Mrs. Raddle, we get an impression of an incredible narrowness of entry, of passage and of stairs which seem to encroach upon one and hem one in. A single glance within the open door of No. 55 brings up the scene. The entry is so narrow that one can feel one's shoulders rub along the walls on either side. Yet as one gets a glimpse of the stairs at the end one sees they are still narrower, with an even more narrow side-passage to the kitchen stairs down which 'the handmaid, who had been brought up among the aboriginal inhabitants of Southwark, disappeared.' It is the type of house in which every square inch of floor space and every cubic inch of air has been skimped in order to keep down construction costs. It was doomed from the day of its foundation to form part of a slum. No. 53 is entirely different. As the door opens you enter a hall, spacious for a house of this size; in front is an arch, after passing which no one could have 'stumbled upstairs,' the flight is wider than in most suburban houses that are being built to-day. There is a good parlour on the ground floor front with a medallion of Ceres over the fire-place. Other medallions are on the ceiling with incrustations of plaster joining them to the central point. The ground floor back is a roomy kitchen with a large dresser, which is a structure sufficiently unusual in the neighbourhood to be specially pointed out to the

visitor, as is also an eight-foot kitchen fender reputed to have been in the house when Dickens was there. No one could have fitted an eight-foot fender into the houses of those inhabitants who directed 'their energies to the letting of furnished apartments.' Local tradition accounts for the house by saying that it used to be occupied by a Lord and Lady Lant after whom the street was named. A row of bells still hanging over the kitchen door is shown as evidence of this. We have not checked the historical accuracy of this tradition. We think it more likely that the builder who built the street put up one house of decent dimensions for his own use, and was influenced by the type of decorations that had been introduced by the brothers Adam some time previously.

Nearly opposite to No. 53 is a small public-house recently rebuilt. We read that the tumblers, 'which had been borrowed from the public-house, were great, dropsical, bloated articles, each supported on a huge gouty leg.' We are not told its name. It has been changed since that time, for to-day it is known as the Gladstone Arms. This liberal tradition is supported in the street by a large school built by the London County Council and called the Charles Dickens School. If the shade of the writer still haunts the street that left him with such bitter memories, their gloom must be relieved four times daily by the prattle of the voices and the patter of the feet of the children that he loved as they go under the guidance of a friendly policeman to and from the school named after him.

The first of the 'medical fellows' to arrive was Jack Hopkins. He was from St. Bartholomew's and a typical Bart.'s man he was. He takes possession of the stage at once. He was the life and soul of the party, and he was the only one with the courage to tackle the landlady when she broke it up. He is the young man keen on surgery and devoted to his chief. He is late—a habit of young surgeons—having 'been detained at Bartholomew's.' There ensues a discussion on "shop," but it is not Mr. Hopkins that starts this. It is Mr. Pickwick, and Mr. Hopkins replies that the cause of his detention was 'rather a good accident brought into the casualty ward.' Mr. Pickwick, in the way that elderly laymen have, wants to know all the lurid details, and Jack Hopkins is led on in his talk from answering out of politeness to a boasting account of his chief Slasher's abilities. Then, realising he has said too much, he starts to pull Mr. Pickwick's leg with the story of the necklace. It is an excellent story, excellently told. It begins in a quiet, almost a dull, way. Any physician would be delighted with the opening sentences in a clinical report, but it gathers momentum in a way no clinical clerk can emulate, and a sketch of the family at dinner brings it to a climax with the words, 'The father caught the child up and ran with him to the hospital.' It ends shortly with the precautions taken 'for fear he should wake the patients.' We can see Mr. Pickwick's eyes getting rounder and rounder, we can almost feel his mouth opening as the muscles of his jaws relax in wonder :—

"That's the most extraordinary case I ever heard of," said Mr. Pickwick, with an emphatic blow on the table.

Mr. Pickwick had 'swallowed' it in spite of a hint at the beginning by the narrator. Mr. Jack Hopkins is a judge of human nature, and is certainly a student of whom St. Bartholomew's may be proud. His story is a standard one in clinical medicine, and if there is anyone who does not know it he or she should keep the fact quiet and remedy it by reading the fourth chapter of the second volume of the Posthumous Papers of the Pickwick Club.

Mr. Benjamin Allen, who was the second of the 'couple o' Sawbones' that arrived at Dingley Dell on Christmas morning, was apparently a St. Thomas's man. This may be gathered from two pieces of evidence. The first is a bit of conversation between him and Bob Sawyer overheard by Mr. Pickwick. The two medicos were making an excellent breakfast after their morning coach-drive in the frozen dawn from the neighbouring town of Muggleton :—

"By-the-bye, Bob," said Mr. Allen, "have you finished that leg yet?"

"Nearly," replied Sawyer, helping himself to half a fowl as he spoke. "It's a very muscular one for a child's."

"Is it?" inquired Mr. Allen, carelessly.

"Very," said Bob Sawyer, with his mouth full.

"I've put my name down for an arm, at our place," said Mr. Allen. "We're clubbing for a subject, and the list is nearly full, only we can't get hold of any fellow that wants a head. I wish you'd take it."

"No," replied Bob Sawyer; "can't afford expensive luxuries."

"Nonsense!" said Allen.

"Can't indeed," rejoined Bob Sawyer. "I wouldn't mind a brain, but I cannot stand a whole head."

"Hush, hush, gentlemen, pray," said Mr. Pickwick, "I hear the ladies."

Now it is clear from this that Messrs. Sawyer and Allen were not at the same hospital, but they were in a position to work together on occasion. The only two hospitals at which such an arrangement has ever been possible are St. Thomas's and Guy's. Bob Sawyer was at Guy's. Therefore Ben Allen was at St. Thomas's which was then opposite to it. Surgery and Anatomy had been taught at St. Thomas's and Medicine at Guy's.

This union had ended in 1825, but the students of each hospital were allowed to attend the practice of the other hospital until 1836, the year in which the Pickwick Papers began to appear.

There is confirmatory evidence that Ben Allen was a St. Thomas's man in the account of the journey home after the party in Lant Street. Mr. Pickwick was staying at the George and Vulture in the City. To get there he would have gone along Lant Street, turned to the left into the High Street, and walked along that over London Bridge; 'he was closely followed by Mr. Tupman, Mr. Winkle and Mr. Snodgrass.' Mr. Jack Hopkins had probably gone in the other direction on leaving Mrs. Raddle's, towards Southwark Bridge and the neighbourhood of St. Bartholomew's; Mr. Allen, however, accompanied them part of the way :—

Mr. Ben Allen, who was dismally depressed with spirits and agitation, accompanied them as far as London Bridge, and in the course of the walk confided to Mr. Winkle, as an especially eligible person to entrust the secret to, that he was resolved to cut the throat of any gentleman except Mr. Bob Sawyer, who should aspire to the affections of his sister Arabella. Having expressed his determination to perform this painful duty of a brother with proper firmness, he burst into tears, knocked his hat over his eyes, and, making the best of his way back, knocked double knocks at the door of the Borough Market Office, and took short naps on the steps alternatively, until daybreak, under the firm impression that he lived there, and had forgotten the key.

If Lant Street is an example of the Borough as it was, great changes have affected the region between the St. Saviour's Church and the statue of the Southwark soldier. The Borough Market has been rebuilt more than once, and no railway spanned the High Street, Southwark Street was not in existence; where this now enters the High Street Church Street curled round the back of the Market and St. Saviour's to the dock of St. Mary Overy, whence every parishioner in the parish of St. Saviour could, and still may, land goods without the payment of any toll. In spite of all this change the fine new building that houses the offices of the Borough Market to-day is probably close to the site on which Ben Allen collapsed one hundred years ago. Around him were the buildings that had formed the original Borough of Southwark and that, perhaps, were centuries old. We can well believe that some widowed cottager let lodgings to the pupils of the two hospitals. Mr. Benjamin Allen had walked past the spot in company with the Pickwickians. Can we doubt that when he parted with them and retraced his steps it was with the object of finding his "digs"? No student of any other hospital than St. Thomas's or Guy's would have "digged" in the Borough, and as he did not belong to Guy's he must have been a St. Thomas's man.

Poor Ben Allen! We are always sorry for him. He was 'not remarkable for the ownership of a very strong head,' and he had chosen as his friend out of all the tipplers recorded in the Pickwick Papers one who could carry his liquor better than any, with two possible exceptions. He is one of those persons who always takes second place, being a sort of servitor to the stronger character :—

"Ben, my fine fellow, put your hand into the cupboard and bring out the patent digester."

Mr. Benjamin Allen smiled his readiness, and produced from the closet at his elbow a black bottle half full of brandy.

And then again, half a minute later :—

"Ben, the pipkin!"

Mr. Benjamin Allen drew forth, from the same hiding-place, a small brass pipkin, which Bob Sawyer observed he prided himself upon, particularly because it looked so business-like.

One feels one would begin to like him better if he would turn round on Bob and tell him to get the damned thing himself.

We know that he was of age for he and his sister each came into one thousand pounds on attaining their majority, and he had learnt that 'a thousand pounds is not much' by spending his 'without the smallest difficulty.' We have no record that he ever '*passed*,' as we have in the case of Mr. Sawyer. No doubt he did, 'both gentlemen having received surgical appointments from the East India Company' after the story ends. He was the sort of student who absorbs the treatment of the day and sticks to it ever after; in his case it was bleeding; to-day it would be tonsillectomy, or the administration of some gland, or the latest drug with a high-sounding name put up neatly—and expensively—by a go-ahead drug-house. He was a timid young man. When Mr. Sawyer strove to obtain hot water to mix with the brandy and had failed to obtain it, he decides to give his landlady warning. Ben Allen, who had 'a white face cut rather long,' says, '"No, don't,"' in a tone of voice that reminds us of Mr. Claude Hulbert over the microphone. He was one of those destructive persons who must always be damaging something. Thus in his friend's surgery he was 'amusing himself by boring little circular caverns in the chimney-piece with a red-hot poker.' To-day he would be smoking cigarettes and spoiling all the furniture by leaving lighted but forgotten halves protruding over the edges of dining tables and of mantel-pieces.

He had a permanent predisposition to 'maudlinism,' which became heightened as the result of staying too long with Mr. Robert Sawyer, and

rises to a pitch of bathos as he confides in Mr. Winkle his anxieties with regard to his sister, whose 'natural protector and guardian' he considers himself to be. His sister, on the other hand, did not think much of him. When she first saw him at Dingley Dell her greeting was not enthusiastic, being couched 'in a tone which expressed more surprise than pleasure at the sight of her brother,' and her greeting was hardly more enthusiastic when she first met him after her marriage. When Sam Weller describes him as '"the Sawbones in barnacles,"' she but half recognises him, but when he adds that he is '"the dirtiest vun o' the two"' she knows him at once, suggesting that the condition under which we first meet the two medical students is a permanent one in his case.

To be fair to him we must admit that he was a better skater than Mr. Winkle. We used to think he must have been really good, but recent experience has led us to doubt whether he was anything out of the ordinary. It all depends upon the meaning of the word 'reel' when applied to the ice. We read that 'Mr. Wardle and Benjamin Allen, assisted by the aforesaid Bob Sawyer, performed some mystic evolutions, which they called a reel.' As a small boy we always imagined that the word inferred some movements of extreme rapidity of a rotatory character, and we held this view for nearly half a century until the building of the Streatham ice rink. It is true that on that rink one may see gyrations that answer to our preconceived idea of a reel; they are, however, performed by slim young men and bunchy young women who are professional skaters. It is doubtful whether Messrs. Sawyer and Allen could ever have attained to such an efficiency before the days of winter sport in Switzerland and of ice-rinks at home. It is certain that Mr. Wardle could not; for Mr. Wardle was not only old, he was stout. We are introduced to him at Rochester as a 'stout old gentleman,' and the former epithet is repeated no fewer than ten times before we get used to him as Mr. Wardle. When we are first at Dingley Dell he is as persistently called 'the old gentleman.' We have attended at the Streatham skating rink, and we have had experience of middle-aged heavily-built men laboriously attaining to a figure of eight, but few of them ever manage a three turn; an occasional one may, with the assistance of the largest of the young ladies, succeed with a laboured and not very rapid waltz. We do not believe that it was possible for a 'stout old gentleman' ever to have performed a 'reel' upon the ice as we used to imagine it. We have come to the conclusion that the reel in which Mr. Benjamin Allen took part was a series of formal figures upon the ice similar to those that we, in our youth, performed upon the drawing-room floor in the Lancers, before the "kitchen" variety of this dance had developed. That being so, even Mr. Ben Allen's skating must have been of a very ordinary type. Here we must leave him; we have done our best for him. If there is any St. Thomas's man who can do better, he is at liberty to try.

We must deal rapidly with the other 'medical fellows' who attended the party in Lant Street. They are five in number, and may be tabulated thus:—

a large-headed young man in a black wig;
a scrobutic youth in a long stock;
a gentleman in a shirt emblazoned with pink anchors;
a pale youth with a plated watchguard;
a prim personage in clean linen and cloth boots.

If we add Mr. Jack Hopkins, who 'wore a black velvet waistcoat, with thunder-and-lightning buttons, and a blue-striped shirt with a false collar,' the descriptions might do for a group of students to-day after making allowance for changes in fashion. Nor would the allowance have to be a very great one, for we still see pale youths with plated watchguards, while others emblazon emblems upon their ties in place of their shirts. Nor are any of their garments so remarkable as those nether ones that fall halfway down between the knees and the ankles so that it is impossible from behind to know whether the wearer is a young man intending to play golf or a shingled young woman. The only garment that gives us any trouble is Mr. Hopkins's collar. It suggests to us an indiarubber article with a crack across it, but we cannot believe that such a thing was ever worn by anyone that studied at St. Bartholomew's.

Of the youth with the watchguard and the young man in a wig we hear no more. 'The prim man in cloth boots,' however, is remarkable for two things. 'He had been unsuccessfully attempting to make a joke during the whole time the round game lasted'—it was '*vingt-et-un* at sixpence a dozen'—and equally unsuccessfully he tried to tell a 'long story about a great public character, whose name he had forgotten, making a particularly happy reply to another eminent and illustrious individual whom he had never been able to identify.' When we say he was remarkable for these two things, we do not mean that there was anything unusual in him, in fact rather the opposite. We mean that the facts are recorded about him. Of the remaining two we know the names; that of 'the scorbutic youth' was

Noddy, that of ' the gentleman with pink anchors' was Mr. Gunter. They had ' a slight dispute ' during the game of *vingt-et-un*. This broke out again after supper, when the brandy had to be drunk with cold water instead of hot owing to Mrs. Raddle having ' raked out the kitchen fire afore she went to bed, and locked up the kittle.'

This quarrel is of extreme interest as it illustrates a phase in the change of our customs. It occurred at a time when duelling was still in existence, but when it was passing. The one retained the duelling ideals, the other had ceased to regard them, and as so often happens, the person with the new ideas treats the old ones with derision. It is Mr. Noddy who issues the challenge :—

" I request that you'll favour me with your card, Sir."

Mr. Gunter refuses, and on being asked his reason for this replies :—

"Because you'll stick it on your chimney-piece and delude your visitors into the false belief that a gentleman has been to see you, sir."

At this, Mr. Noddy has another try :—

" Sir, a friend of mine shall wait on you in the morning."

Only to receive the reply :—

" Sir, I'm very much obliged to you for the caution, and I'll leave particular directions with the servant to lock up the spoons."

We are not surprised that ' at this point the remainder of the guests interposed.' The quarrel was patched up. Messrs. Gunter and Noddy become friends again and pass out into eternity, but in their passing exhibit the compromise that is necessary where old ideals are giving way to new, for ' everybody said that the whole dispute had been conducted in a manner which was highly honourable to both parties concerned.'

We have left the character of Bob Sawyer to the last, not merely because he is the most vital of all Dickens's medical students, but also because he exemplifies a principle in the history of fiction. This is that the creator of a character has no final decision upon that character. The created gets control, carries away the creator, and becomes an entirely different being from what he or she was first intended to be. The nature of genius is such that it cannot confine itself, and we have in Bob Sawyer a character intended at first to be odious who, in spite of its creator, becomes less so as we go on; after a temporary setback, he gets the bit between his teeth and carries us away with him till we find him one of the most lovable of creatures and not a bad doctor after all.

There can be, we think, no doubt that these two young men—' Sawbones in trainin', ' as Sam Weller called them—are meant to be odious on their first introduction. Mr. Pickwick's prejudice in favour of medical students is countered at every sentence by a statement of fact by Sam Weller which tends to this view :—

" I am glad of it," said Mr. Pickwick, casting his nightcap energetically on the counterpane, " they are fine fellows; very fine fellows; with judgments matured by observation and reflection; tastes refined by reading and study. I am very glad of it."

" They're a-smokin' cigars by the kitchen fire," said Sam.

" Ah ! " observed Mr. Pickwick, rubbing his hands, " overflowing with kindly feelings and animal spirits. Just what I like to see."

" And one on 'em," said Sam, not noticing his master's interruption, " one on 'em's got his legs on the table, and is drinkin' brandy neat, vile the t'other one —him in the barnacles—has got a barrel o' oysters atween his knees, wich he's a-openin' like steam, and as fast as he eats them, he takes aim with the shells at young dropsy, who's a cittin' fast asleep, in the chimbley corner."

" Eccentricities of genius, Sam," said Mr. Pickwick. " You may retire."

On his first introduction Bob Sawyer is very rude :—

" Splendid morning, gentlemen," said Mr. Pickwick.

Mr. Bob Sawyer slightly nodded assent to the proposition, and asked Mr. Benjamin Allen for the mustard.

They then make themselves appear more unpleasant to us by representing that the cause of their not having been there the night before was that ' the brandy was too good to leave in a hurry,' and that ' the cigars were not bad, or the pork chops either.' Brandy, cigars and pork chops in the coaching inn of a small town preferred to the scene of domestic happiness and jollification that we had had described in the previous chapter : the wedding in the country church; the wedding breakfast that had been laid by Sam and the Fat Boy; the servants called in to drink the toast of the happy couple; then the dance, followed by a supper, and the final scene in the kitchen with all the family mixing with the servants and sharing a wassail bowl that took two hours to empty. It is the last scene of Merrie England, and to it these two young men are made to prefer a mixture of pork chops, indifferent cigars and cheap brandy.

The description of them is vicious. We have refrained out of kindness to Mr. Benjamin Allen from quoting that of him. That of Mr. Bob Sawyer is no better. It is said of him that he ' had about him that sort of slovenly smartness, and swaggering gait, which is peculiar to young gentlemen who smoke in the streets by day, shout and scream in the same by night, call waiters by their Christian names, and do various other acts and deeds of an equally facetious description,'

and it finishes up by saying that 'he eschewed gloves, and looked, upon the whole, something like a dissipated Robinson Crusoe.'

In spite of all this, before he leaves Dingley Dell we are beginning to like him, and so was Mr. Pickwick. In their parting on this occasion we seem to hear the first whisper that there might some day be a Bertram Wooster :—

> " I say, old boy, where do you hang out ? "
> Mr. Pickwick replied that he was at present suspended at the George and Vulture.

In Lant Street we are sorry for him, as we should be for any young man acting, perhaps for the first time, as host, with a debt to his landlady for his rent that had been running for four months 'and money lent out of pocket beside.' Having spent our youth in a happy home, we have not had the experience of dealing with landladies, but we must admit that we view with terror the possibility of having to face Mrs. Raddle. It is not as though she were the huge woman of the comic papers with arms a-kimbo filling the door. It is the little bits of things before whom we quail, and Mrs. Raddle was one of them. She was a 'little fierce woman . . . all in a tremble with passion and pale with rage,' and after she had 'tossed her head, bit her lips, rubbed her hands harder, and looked at the wall more steadily than ever,' we are not surprised that the 'discomfited student' on the arrival of Mr. Pickwick and his friends 'had been afraid to go down, lest he should be waylaid by Mrs. Raddle,' and had to receive them instead upstairs 'in his first-floor front.' And yet we have some sympathy with the fierce little woman and consider sound her argument that if Mr. Sawyer could afford to give a party he 'ought to be able to pay her confounded 'little bill'.' It is just what we think ourselves when we hear of a patient giving a party when he has not paid his account. On the whole, then, it is honours easy so far as the party is concerned, and at the end of this chapter we feel about the same as regards Mr. Sawyer as we did at the end of the first.

The next time we meet him there is a serious setback. He has now '*passed*' and has settled under the title of 'Sawyer, late Nockemorf' as a practitioner in Bristol. It is a sordid shop, with Bob in debt to everyone and taking far more alcohol than is good for him. Everything he says seems to suggest that he has a low ideal as a professional man, and that Dickens has a still lower idea of medical men as a whole. But it is at this moment that the character begins to take charge of the creator. An adjective here, a humorous remark there, a brave face in adversity, an insight into the humorous side of life, begin to make us like him instead of to despise him. Ten chapters later on we return to the same scene. We do not think it a good chapter; but it is relieved by the steady improvement in the character of Mr. Sawyer, and then comes that wonderful drive from Bristol to Birmingham in which he definitely comes into his own. Neither Mr. Pickwick nor Dickens himself can any longer resist him. Then we have the final scene of him and Sam Weller on the outside of the chaise in the pouring rain, in which the two Cockneys retain a serenity of spirit and a sense of humour that is heroic, and has only been equalled by those other Cockneys under similar conditions during the Great War.

We may justify our opinion of him by considering what can be said against him. The counts on which we shall have to answer are that he was intemperate, that he was dirty, that he was untidy in his home and careless in his practice, that he advertised, and that he was a failure. Let us admit that he could take a considerable quantity of alcohol. There is, however, no record of his being drunk. When they arrive at the house of Mr. Winkle, Senior, he is merry, and no more, in spite of the amount that he had taken on the journey. Perhaps driving eighty-seven and a half miles on the top of a chaise in mid-September would enable a person to deal with a quantity of which we are incapable to-day. The effort of balancing on the chaise must have been a considerable muscular exertion, and the evaporation from the skin must also have been great, whether it were a warm day or whether a breeze was blowing. It is true that at one place it is written that 'Mr. Bob Sawyer, understanding the message, after some twenty repetitions, tied a wet cloth round his head to sober himself, and, having partially succeeded, put on his green spectacles and issued forth.' We are confident, however, that the record is here at fault, to the detriment of Bob Sawyer. The occasion is that on which Mr. Winkle entered a surgery in Bristol in the middle of the day and, discovering there Bob Sawyer and Ben Allen, remained there all the afternoon, dined with them, and subsequently discussed with them 'a reeking jorum of rum punch.' It will be remembered that 'Mr. Sawyer, being a bachelor, had only one tumbler in the house, which was assigned to Mr. Winkle as a compliment to the visitor: Mr. Ben Allen being accommodated with a funnel with a cork in the narrow end: and Mr. Bob Sawyer contented himself with one of those wide-topped crystal vessels inscribed with a variety of cabalistic characters, in which chemists are wont to measure out their liquid drugs in compounding prescriptions.' Now neither Mr.

Ben Allen nor Mr. Winkle was famous for the strength of his head. Of Mr. Ben Allen we have this definitely on record. Of Mr. Winkle we may deduce it from the way in which he was bowled over by a very ordinary dinner on the first arrival of the Pickwickians at Rochester, a dinner that left Mr. Tupman quite unaffected. On the occasion in question all we learn of Mr. Ben Allen was that he 'was fast relapsing into the sentimental,' which he was very prone to do. Mr. Winkle, on the other hand, 'took his departure, and returned to the Bush,' where he took still more alcohol in the form of 'a soda-water and brandy at the bar,' after which 'he turned into the coffee-room,' where he met and made up his quarrel with Mr. Dowler. There is no sign of alcoholism in Mr. Winkle on this occasion. We maintain that a drinking bout which left Mr. Winkle sober and Mr. Allen sentimental could not materially have affected the much stronger head of Bob Sawyer. Either the account is inaccurate or there is a "snag" somewhere. This latter may be found in the 'wide-lipped crystal vessel' that Mr. Sawyer was using as a drinking-glass. If instead of the measure glass holding two ounces which tapers to a point at the bottom it were a half-pint measure with the lower end square in section, it may have so deceived Mr. Sawyer that, instead of holding less than the tumbler that Mr. Winkle was using, it actually held more. These square-bottomed vessels are very dangerous. We once had a couple of gins out of a beaker with a physiologist in his laboratory. The physiologist was used to it, but we said "when" when the level of the gin was the same as we were used to when it was poured into a tumbler. The difference between the square bottom of the beaker and the round bottom of the tumbler was probably in the proportion of two to one. We mention this as a warning to all who enter a physiologist's laboratory at about six in the evening, and as a possible explanation of the condition of Mr. Sawyer.

There is another record of Mr. Sawyer being drunk, but it is hearsay evidence, being told by Mr. Ben Allen to Mr. Pickwick in the chaise on the way to Birmingham :—

> In proof of Mr. Bob Sawyer's being one of the funniest fellows alive, he proceeded to entertain Mr. Pickwick with a long and circumstantial account how that gentleman once drank himself into a fever and got his head shaved; the relation of which pleasant and agreeable history was only stopped by the stoppage of the chaise at the Bell at Berkeley Heath.

We maintain that this will not fit in with any form of alcoholism known to clinical medicine. It is just the sort of muddle-headed mixture that a student of the type of Mr. Ben Allen dishes up to his teachers a few days before he goes in for his final examination.

Let us consider this question of alcohol and Mr. Bob Sawyer, not in comparison with the medical student of to-day, but with the alcohol consumption of one hundred years ago.

The Pickwick Papers was written in a hard-drinking age; many chapters are devoted to a hard-drinking population—the people of the roads. Drunkenness was common and was no disgrace. Mr. Pickwick was often drunk. Such is the genius of Dickens that by the turn of a sentence or the insertion of an adjective he can depict these scenes of intemperance either as ones of amusement or of coarseness. When the scene is amusing the intemperance is that of Mr. Pickwick; when it verges on the coarse the intemperance is that of the medical students. We have on several occasions set out to reckon up the number of times that Mr. Pickwick was drunk or half-seas over. We have taken pencil and paper and have carefully recorded the first three or four times, and then the post-chaise from the Blue Lion at Muggleton sweeps us along in pursuit of Jingle and our self-allotted task is forgotten until we find ourselves with Mr. Pickwick settling down in quietude in the neighbourhood of Dulwich. But we can say this: that on every occasion Mr. Pickwick is at the worst amiable and at the best amusing. We may be a little ashamed of him in the kitchen at Dingley Dell; we cannot but laugh at him in the barrow in the pound. When, therefore, we read that 'Mr. Bob Sawyer was not remarkable for temperance,' we must remember that neither was anyone else in the Pickwick Papers, with the single exception of Mr. Stiggins.

The evidence that he was dirty is based upon his first appearance, and the remark of Sam Weller that we have already quoted about 'the dirtiest vun o' the two,' but while the fact that Arabella recognises her brother by this description is evidence of the permanently grubby condition of Mr. Benjamin Allen, it is not so of Mr. Bob Sawyer. Sam Weller had then only seen him once, and he had been prejudiced against him at first sight, as we know from his talk with Mr. Pickwick. Had Sam Weller's opinion been recorded after he had got to know Bob on the chaise journey to Birmingham and back, we feel that it would have been a very different one. We cannot but think that it was unfair on these medical students that they were first introduced to us after a coach drive at dawn on a very cold Christmas morning. '"Water in the wash-hand basin's a mask o' ice, sir," responded Sam,' in reply to Mr. Pickwick's inquiry about the weather when Sam brought up his warm water on that

morning. It is difficult for us to-day to realise how hard travelling must have been then. Those who have served with troops that were moved at night, and arrived in camp at dawn, may have some appreciation of it. There is a sensation of sticky dirtiness combined with hunger in such a memory. We would ask who would like to go down to posterity in a pen picture drawn by a master, on the quay-side of St. Malo after having crossed by the night boat from Southampton without having been able to get a berth or any accommodation except that on deck? We believe we should feel ourselves ill-treated by such a description. Nor must we forget that the ablutions of Mr. Pickwick himself cannot have been of a very complete nature. On the occasion that we have been discussing he arrives full-dressed in the breakfast-room within a quarter of an hour of having untied his night-cap, and he was a clean-shaven man. 'Great men are seldom over-scrupulous in the arrangement of their attire' we read at our first meeting with him, and there is another account of his levée in which 'ten minutes sufficed for the completion of his toilet.' We cannot but think that this infers something less than a want of scruple.

Of the untidiness of Bob's home we get evidence from the condition of the back parlour, which Mr. Winkle 'judged to be the innermost and peculiar sanctum of the establishment, from the repetition of the word surgery on the door.' In this he kept the coal in 'a practicable window seat, labelled "Soda Water."' He kicked across his shop the textbook of medicine that he had been pretending to read, with the adjuration, 'Get out, you mouldly old villain, get out!' We think that on this count we must plead guilty for him, but we must also plead extenuating circumstances. He was a young bachelor, his food was cooked outside and was brought in from the baker's; for service he was dependent on 'an occasional charwoman,' and his 'domestic arrangements' ran to the tumbler and two knives and forks. We wonder whether any of us would be able to hold our own against so depressing a home atmosphere. His outside shop was apparently tidy, though this was not difficult when we remember that most of the stock was 'dummies.' He did, however, use his equipment unduly for domestic purposes. The pipkin on which he prided himself 'because it looked so business-like,' was used for heating the water with which 'Mr. Winkle adulterated his brandy.' For the rum-punch 'the largest mortar in the shop' was employed, and we have already heard how Ben Allen used the funnel as a tumbler.

Professional advertising is a matter for a nice discrimination; we all do a certain amount of it, we all draw the line somewhere, and we all disapprove of the man who draws it a little further. Mauve motor-cars were not in existence in Mr. Sawyer's day, and therefore he was unable to dress up his chauffeur in a coat of similar hue with a lamb-skin collar, but he did have 'a boy, in a sober grey livery and a gold-laced hat,' and he made use of that boy for a plan of advertising carefully thought out by himself and Ben Allen. The propriety of such things largely depends upon whether a practitioner is a squatter or has acquired the practice by heredity or by purchase. If the former, such behaviour is considered unethical; if the latter it is allowed. Whether Mr. Nockemorf was dead or merely retired we do not know, but Sawyer had acquired that practice by purchase, for he tells Mr. Winkle that 'my friends came down with the needful for this business.' We feel, therefore, that all his schemes for acquiring patients were quite legitimate.

It was not a very good practice; when we first meet him he admits as much. When we next do so he and Ben Allen are discussing what can be done to stave off bankruptcy. That bankruptcy came, and 'Mr. Bob Sawyer, having previously passed through the *Gazette*, passed over to Bengal.' He was a failure, let us admit. In a world that estimates success only in terms of pounds shillings and pence and the display that can be obtained thereby, Mr. Robert Sawyer, of Guy's Hospital, was a hopeless failure.

We believe that we have brought out every point that can be made against Bob Sawyer. Now let us see what can be said for him. In the first place he was a good sportsman, agile both with his hands and on his feet. We read of him 'throwing the large book into the air, and catching it with great dexterity at the very moment when it threatened to smash to atoms all the bottles on the counter.' His skating was first-rate; there was no question of mediocrity there:—

> Mr. Bob Sawyer adjusted his skates with a dexterity which to Mr. Winkle was perfectly marvellous—*how modern that sounds*—and described circles with his left leg, and cut figures of eight, and inscribed upon the ice, without once stopping for breath, a great many other pleasant and astonishing devices, to the excessive satisfaction of Mr. Pickwick, Mr. Tupman, and the ladies.

We feel that he might have taken his bronze medal any day. He was, however, not one of your athletic snobs, for, good skater as he was, he was quite willing to take off his skates and join in the more plebeian—from an athletic standpoint—sport of sliding:—

> "Keep the pot a bilin', Sir!" said Sam, and down went Wardle again, and then Mr. Pickwick, and then

Sam, and then Mr. Winkle, and then Mr. Bob Sawyer, and then the fat boy, and then Mr. Snodgrass.

He was true to the medical treatment of his day, but he was not hide-bound by it. When the rival editors came to blows he joined Mr. Ben Allen in dodging 'round the group, each with a tortoiseshell lancet in his hand, ready to bleed the first man stunned.' He had, however, advanced views on calomel, the efficiency of which he was beginning to doubt. When he is shutting up the shop to accompany Mr. Pickwick to Birmingham he explains with regard to his patients that 'they will be all the better for it; for, being nearly out of drugs, and not able to increase my account just now, I should have been obliged to give them calomel all round, and it would have been certain to have disagreed with some of them." How revolutionary that was will be appreciated when we remember that at Guy's he may have gone round the wards with a Physician who had studied under Dr. James Curry, who was known to the world as "Calomel Curry" because he believed that all illnesses arose in the liver and that calomel alone could control them. Tradition credits him with having the salt in his sandwiches replaced by it. To suggest that it might have disagreed with anyone was almost as revolutionary as to hint to-day that vast quantities of hexamine could give rise to indigestion.

He had strong views as to the value of alcohol in preventive medicine. When Mr. Pickwick had become a case of immersion through the ice breaking, he was wrapped up in the ladies' shawls and made to run back to Manor Farm, and went to bed :—

Sam Weller lighted a blazing fire in the room, and took up his dinner; a bowl of punch was carried up afterwards, and a grand carouse held in honour of his safety. Old Wardle would not hear of his rising, so they made the bed the chair, and Mr. Pickwick presided. A second and a third bowl were ordered in; and when Mr. Pickwick awoke next morning, there was not a symptom of rheumatism about him; which proves, as Mr. Bob Sawyer very justly observed, that there is nothing like hot punch in such cases: and that if ever hot punch did fail to act as a preventive, it was merely because the patient fell into the vulgar error of not taking enough of it.

Mr. Bob Sawyer is entitled to his reasoning as much as is the surgeon of to-day who, failing to cure a tummy-ache by an operation, opens it again to have another peep inside. We have often considered whether his aphorism is the origin of the cure of a cold known as the Top-Hat Treatment, in which the patient retires with a top hat and a bottle of whisky and, putting the hat at the bottom of the bed, into which he gets, drinks the whisky until there are three.

Bob Sawyer had that "damn'd charrm"—as J. M. Barrie calls it—that is so galling to those that have it not. Mr. Winkle has every reason to dislike him. He was making a fool of himself when Bob was the cynosure of every eye; he believes that the girl he loved looked favourably upon him, yet he describes him in his own mind as 'sprightly,' and willingly spends a whole day with him. Ben Allen worships him as a dog does his master. The great Jack Hopkins tells him, 'You may command me, Bob.' Sam Weller takes a dislike to him at first sight, but this dislike dissolves at once when next they meet, and they become bosom pals on the roof of the chaise. In the pouring rain they discuss the philosophy of death as applied to donkeys and post-boys, and Bob attends Sam's wedding. Mr. Pickwick is very annoyed at their behaviour at the beginning of the drive, but the annoyance gives way at once to Bob's hearty laugh :—

"What a merry dog it is!" said Mr. Pickwick, looking round at his companion with the bottle in his hand.

"He is," said Mr. Allen.

"You cannot possibly be angry with him," remarked Mr. Pickwick.

Be it noted that this was said before Mr. Pickwick had tasted the milk-punch. The only person that suppressed him was Mr. Winkle, Senior, and we do not think any the worse of Bob Sawyer for this; we think the more of old Winkle.

It is, however, his behaviour in adversity under varying conditions that most endears him to us. We have already touched on it under bad physical conditions when outside the chaise with Sam Weller. We have a hint that life with Mrs. Raddle left an enduring effect upon his mind. 'That precious party' is how he describes it to Mr. Winkle six months later. Yet even then he did his duty as a host, if not with flying colours at least with credit. Mr. Pickwick arrives just as Mrs. Raddle 'threw down all the umbrellas in the passage,' which, as a part of 'the preparations for the reception of visitors,' 'had been heaped into the little corner outside the back-parlour door.' Then he had to struggle with the girl, 'who had fallen asleep with her face on the kitchen table.' Poor thing, she was a 'dirty slipshod girl in black cotton stockings, who might have passed for the neglected daughter of a superannuated dustman in very reduced circumstances.' We wonder whether Dickens's dislike of the medical students extended to the landlady's 'young woman of all work,' or whether his sketch of Betsey was drawn from the bitter memories of the time that he himself lived in Lant Street. We suspect it must be the latter, for we believe that this is one of the

few unsympathetic sketches by Dickens of a Borough child.

When the food did arrive things were no better :—

> The man to whom the order for the oysters had been sent, had not been told to open them; it is a very difficult thing to open an oyster with a limp knife or a two-pronged fork; and very little was done in this way. Very little of the beef was done either; and the ham (which was also from the German-sausage shop round the corner) was in a similar predicament. However, there was plenty of porter in a tin can; and the cheese went a great way, for it was very strong.

In spite of all this and the failure of the hot water, he made 'heart-sickening attempts to rally,' but we cannot wonder that he was finally defeated by Mrs. Raddle in her nightcap, supported by 'the voice of Mr. Raddle, which appeared to proceed from beneath some distant bed-clothes.'

His trials when he got into practice are even greater, but the increase of responsibility resulting from his having '*passed*' enable him to bear them with the greater equanimity. It would take us too long to analyse those two chapters, the tenth and the twentieth in the second volume. We would suggest that our readers should go through them again with the new insight into Mr. Sawyer's character that we have endeavoured to indicate. There are many other points that we should like to exemplify: his humour, his friendliness, his kindly thoughts of Arabella, although he recognises 'she don't like me,' and the way in which he received Mr. Sam Weller's announcement that 'she couldn't abide him.' We feel sure he would have been good with children. He had such a way with him. 'Tom, you vagabond, come here,' was how he hailed his boy, but the boy bore him no ill-will for it. He carried out all his instructions, minded his shop, fetched him out of church, and felt himself so much part of the business that he considered that he as much as Sam Weller was entitled to be present at the family pow-wow dealing with Arabella's elopement. Of course, some people misunderstood Bob—the 'smart servant girl' at Mr. Winkle, Senior's, for instance, but probably in later life he admitted that he had been a little too forward on that occasion. Even with Betsey there was a gentleness while he was commanding her 'with desperate sternness.' He caused the authorities of the Bell at Berkeley Heath to produce an excellent lunch in the minimum of time, and his handling of Mr. Pott is an essay in the art of managing the pestering politician.

We know that he was not a bad doctor. This is proven by the fact that the poor people came to him. He had been deceived by the vendor of the practice when the 'business was capitally described in the advertisement.' It was 'a practice, a very extensive practice—and that's all.' Now it is notorious that the most wealthy are frequently served by the worst doctors. They seem to be signally bad at judging character. They assume that a large car, perfect trousers and a sumptuous abode are evidence that they will receive all the necessary skill, care and attention. It is not so. We do not mean that all medical men who own these appurtenances are bad doctors. We mean that if they are good doctors they are so in spite of their outfit rather than because of it. Money alone cannot secure good medical attention.

The poor, however, are better judges. Health means so much more to them. It is not merely a question of life and death; it is the problem of having the means to exist while they are alive. And so we agree for once with Mr. Ben Allen when he says 'It's very gratifying' in response to Bob Sawyer's description of how 'the poor people patronise' him, though we know there is a sardonic humour in Bob's remarks :—

> "They knock me up at all hours of the night; they take medicine to an extent which I should have conceived impossible; they put on blisters and leeches with a perseverance worthy of a better cause; they make additions to their families, in a manner which is quite awful. Six of these last-named little promissory notes, all due on the same day, Ben, and all entrusted to me!"

It is these 'little promissory notes' that tell us so much; obstetrics has been in the past the foundation of many a good practice. When you have brought the baby into the world, you have got it as a patient, and then another comes along and you have the family, and sooner or later the father gets ill and you have him as well. Yes! it's all very gratifying, only as Bob said, 'not quite so much so as the confidence of patients with a shilling or two to spare would be.'

Perhaps if he had been able to hang on a bit longer he could have earned a bare living. We feel sure that he was the better for the move to Bengal. We are not supporters of the notion that the only places in which doctors can do good work are those where they can remain in touch with their old teachers.

And so Bob Sawyer goes out into the wide world with all his failings a lovable fellow, and one of whom no hospital need feel ashamed.

▭

This essay is being reprinted at the expense of the Dickens Fellowship, and the whole proceeds of the sale will go towards the Appeal Fund for the Rebuilding of Guy's House. Copies (price 1s., *post free* 1s. 1d.) *may be had from the "Gazette" Office or from Messrs. Ash & Co.*

It will also be on sale to all working in the Hospital at the Wills Library and the Matron's Office.

"Ah, My Boy!"

By Wing-Commander H. M. Stanley Turner, M.D., F.R.S. (Edin.), R.A.F.

YOUR Editor has asked me to write something for the Jubilee Number of the *Gazette*. His letter arrived this morning (Thursday, November 26th), and I am sailing for Rangoon on Monday next. All packing operations are therefore suspended while I think. I am not thinking what to say, as *you* might think, but what *not* to say!

I am reaching a time of life, I suppose, when a certain amount of retrospection is permissible; when I can rest on my oars and look over the stern as I float down with the tide and say to myself, "Ah! those were the days!" In many ways they were, too. The Tower Bridge was opened in my first winter session. His late Majesty King George V had been married in the summer, just before I entered. What a cavalcade of events seemed to rush past during those eventful years! The assassination of President Carnot; the Diamond Jubilee of Her Majesty Queen Victoria of Blessed Memory; the Jameson Raid; the Græco-Turkish War, to which I and several other students went as volunteers with the Greeks. The Fashoda incident, and the battle of Omdurman. The big Cripplegate fire which burned for the best part of a week and did damage amounting to over seven figures. The big hop warehouse fire in Union Street which also burned for several days and filled up Accident Ward. I was dressing for "Pulpy" Howse when that happened, and we were taking-in.

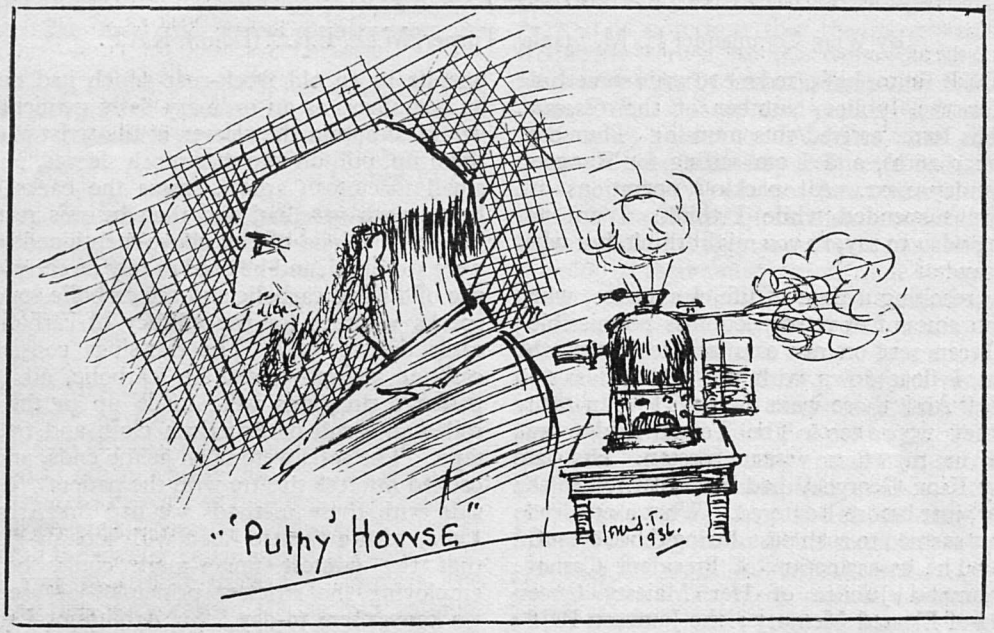
I think of the great Guy's men who were still familiar figures around the Hospital—Sir Samuel Wilks, Dr. Pavy, Sir Thomas Bryant, Arthur Durham—all on the Consulting Staff then, but frequent visitors. Then we had on the Staff Sir Henry Howse, Davies-Colley, Charters Symonds, Golding-Bird, Arbuthnot Lane, Clement Lucas (whose firm were "Leucocytes," of course), Jacobson, affectionately known as "Pom," L. A. Dunn, who was always called "John Dunn" after the celebrated character in the Zulu War. Then there were Pye-Smith, Freddie Taylor, Goodhart, Hale-White, Newton-Pitt, Fawcett, Perry, Shaw and Washbourn.

I, who was very small beer, did Surgical Ward clerking to Mr. Golding-Bird, Medical Ward clerking to Drs. Goodhart and Hale-White, Assistant Surgeon's dresser to Mr. Jacobson, and full Surgeon's dresser to Mr. Howse, with three months' extension.

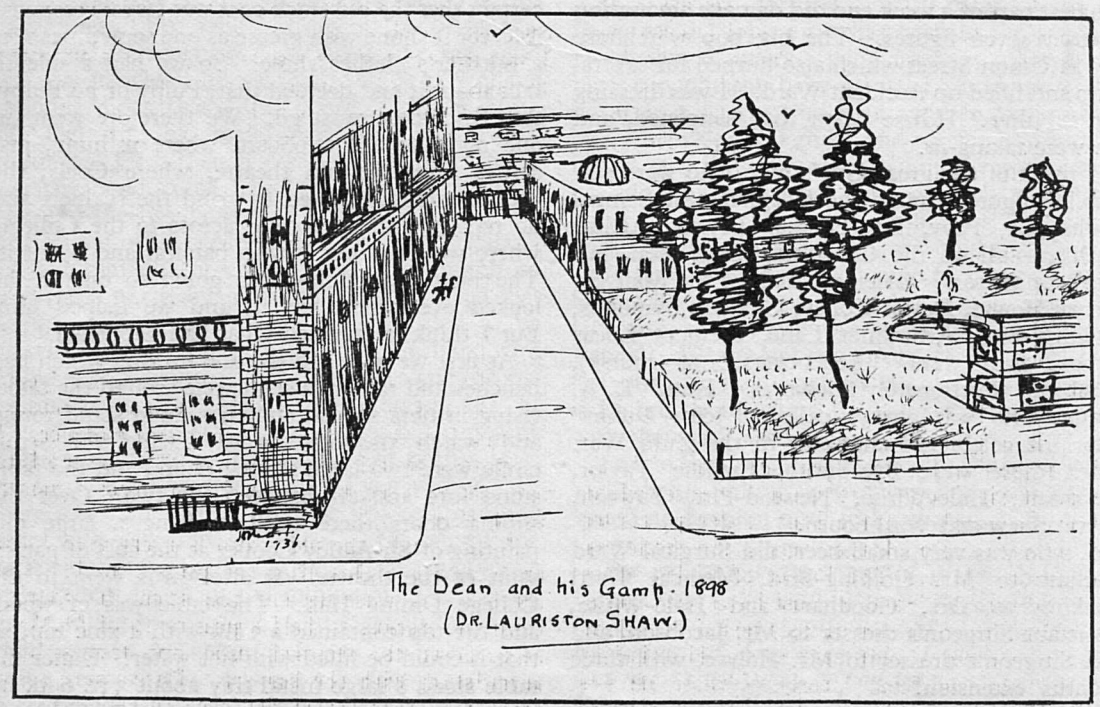
Mr. Howse, as he then was, was the last member of the Surgical Staff to use the old carbolic spray for all operations and dressings. He used to operate in an old frock-coat which had outlived its usefulness as an ordinary daily garment. He would unbutton the sleeves at the wrist and turn them up, pull on two macintosh sleeves, put on a small macintosh apron, smear the backs of his hands with vaseline, and then he was ready for the fray. None of the above-mentioned articles were sterilised, and he used to rely on the plentiful use of 1 in 20 carbolic and the carbolic spray. It speaks volumes for the efficacy of carbolic that cases did so well. The dressings consisted of carbolic gauze, coated in carbolic oil. Each patient's dressings were made up in the ward, rolled in a roll of American cloth and tied with tape. The rolls were open at the ends, and were carried into the theatre with the patient. Side by side with these methods we had Sir Arbuthnot Lane, with a theatre lined with looking-glass, so that the faintest finger-mark could be seen, employing the strictest principles of asepsis as we know them to-day. Sir Arbuthnot Lane was certainly the pioneer of aseptic surgery as far as Guy's was concerned.

We had one or two cases go septic in Charity Ward, and they died. We dressers were perfectly certain that the old frock-coat was largely responsible, for it shone with grease as one sometimes sees a butcher's clothes shine. So we had a solemn talk about it and decided that, Pulpy or no Pulpy, that frock-coat must go. We therefore went up one night to the cupboard where it hung, just across from the old theatre, where Coels, the theatre attendant, used to grind the scalpels and do repairs, and we took it across to the College, where we saturated it with paraffin and burnt it. The next time Pulpy was going to operate he looked everywhere for it, and we helped him. But I think he guessed what had happened.

At first we only had the one theatre, which had benches and rails in a semicircle around the table, rising in tiers so that students could stand round and watch the operations. Facing the semicircle were two large sliding doors, and the table stood fore and aft between the two. Over the sliding doors there used to hang a large oil-painting of Sir Astley Cooper as the sort of patron saint of the theatre. It afterwards went to the College Dining Hall. The table was of wood, and the top contained a tank with a zinc top, so that it could be filled with hot water. Under the table stood a large metal tray about 3 ft. 6 in. by 2 ft., containing sawdust to catch the blood. It was also a convenient receptacle for amputated limbs, etc. In hot weather the two sliding doors



Reminiscences of Wing-Commander Stanley Turner.



The building where Nuffield House now stands contained the Museum and Anatomy School; that on the right was the old Clinical, pulled down in 1919.

used to be kept wide open, with a screen round the head of the table, so that visitors could not see the operations.

I think there is no doubt that we dressers used to get much more to do then than is the case at present, especially in take-in week. It was quite the usual thing during take-in for Mr. Jacobson to give operations to his dressers, and to help and teach us while we were doing them. I myself did a Symes amputation, amputation at the "seat of election," disarticulation through the elbow joint, amputation of the breast for acute mammary abscess, a strangulated hernia, and many minor operations whilst I was a full dresser. The feeling of confidence one gained in this way was very valuable indeed. It may possibly have caused some mistaken individuals to feel that surgery was their metier. I personally practise medicine; but when going out to Singapore early this year, in a troopship, there was a case of acute intestinal obstruction in one of the men. There were five medical officers on board, and when nobody would undertake to tackle it I did it myself, and not only had to divide the constriction, but also to empty the large bowel before I could get it back. All the stitches and the drain were out by the fourteenth day. Although I had not tackled a surgical operation for over twenty years—naturally I have seen many hundreds—the old feeling of confidence acquired in that funny old theatre at Guy's was still there, and I never had any doubts or misgivings, thanks to "Pom."

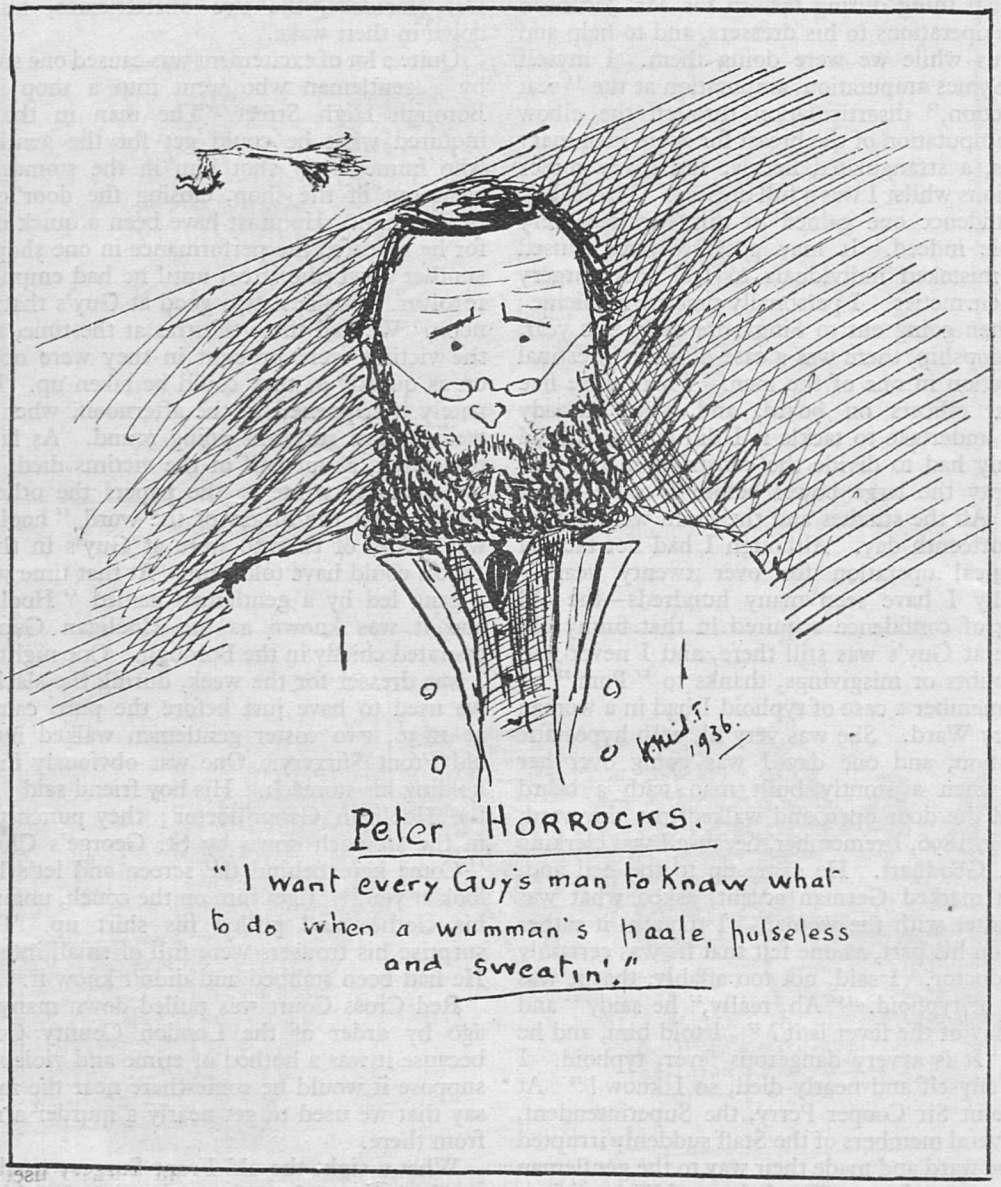
I remember a case of typhoid I had in a woman in Mary Ward. She was very ill, with hypostatic congestion, and one day I was going over her chest when a stoutly built man with a beard pushed the door open and walked into the ward. It was in 1896, I remember, because I was clerking to Dr. Goodhart. He came up to the bed and, with a marked German accent, asked what was the matter with the woman. I thought it rather cheek on his part, as one felt that he was certainly not a doctor. I said, not too affably, that it was a case of typhoid. "Ah, really," he said, "and what day of the fever is it?" I told him, and he said, "It is a very dangerous fever, typhoid. I had it myself and nearly died, so I know!" At this point Sir Cooper Perry, the Superintendent, and several members of the Staff suddenly irrupted into the ward and made their way to the gentleman in question. It was The Prince of Wales, afterwards Edward VII, and it must have been somewhere about the time that he became our President. I also remember a visit paid to the Hospital by His late Majesty King George V when he was Prince of Wales. It was just before the birth of the present Duke of York. His Royal Highness walked through the Colonnade with Sir Cooper Perry, and they went down towards the Medical Building. It was common knowledge at the time that Her Royal Highness was expecting a happy event. I always remember the amusement of a number of us who were standing on the Colonnade steps at the time when we saw Dr. Galabin and Dr. Horrocks, the two obstetricians, hurrying down in their wake.

Quite a lot of excitement was caused one summer by a gentleman who went into a shop in the Borough High Street. The man in the shop inquired what he could get for the gentleman, who immediately shot him in the stomach and went out of the shop, closing the door quietly behind him. He must have been a quick mover, for he repeated the performance in one shop after another down the street until he had emptied his revolver. Business was good at Guy's that afternoon. We had three theatres at the time, and as the victims were brought in they were operated on as quickly as they could be taken up. Fortunately it happened in the afternoon, when there were several surgeons going round. As far as I remember, about half of the victims died.

Somebody wrote to the papers the other day asking what the origin of the word "hooligan" was. Any of us who were at Guy's in the late 1890's could have told him. At that time we had a gang led by a gentleman named "Hooligan," and it was known as the Hooligan Gang. It operated chiefly in the Borough. One night when I was dresser for the week, during the slack time we used to have just before the pubs came out at 12.30, two coster gentlemen walked into the old Front Surgery. One was obviously in pain, holding his stomach. His boy friend said: "It's the Hooligan Gang, doctor; they punched him in the stomach down by St. George's Church." "Come here behind the screen and let's have a look at you." I got him on the couch, unfastened his clothes and pulled his shirt up. To my surprise his trousers were full of small intestines. He had been stabbed and didn't know it.

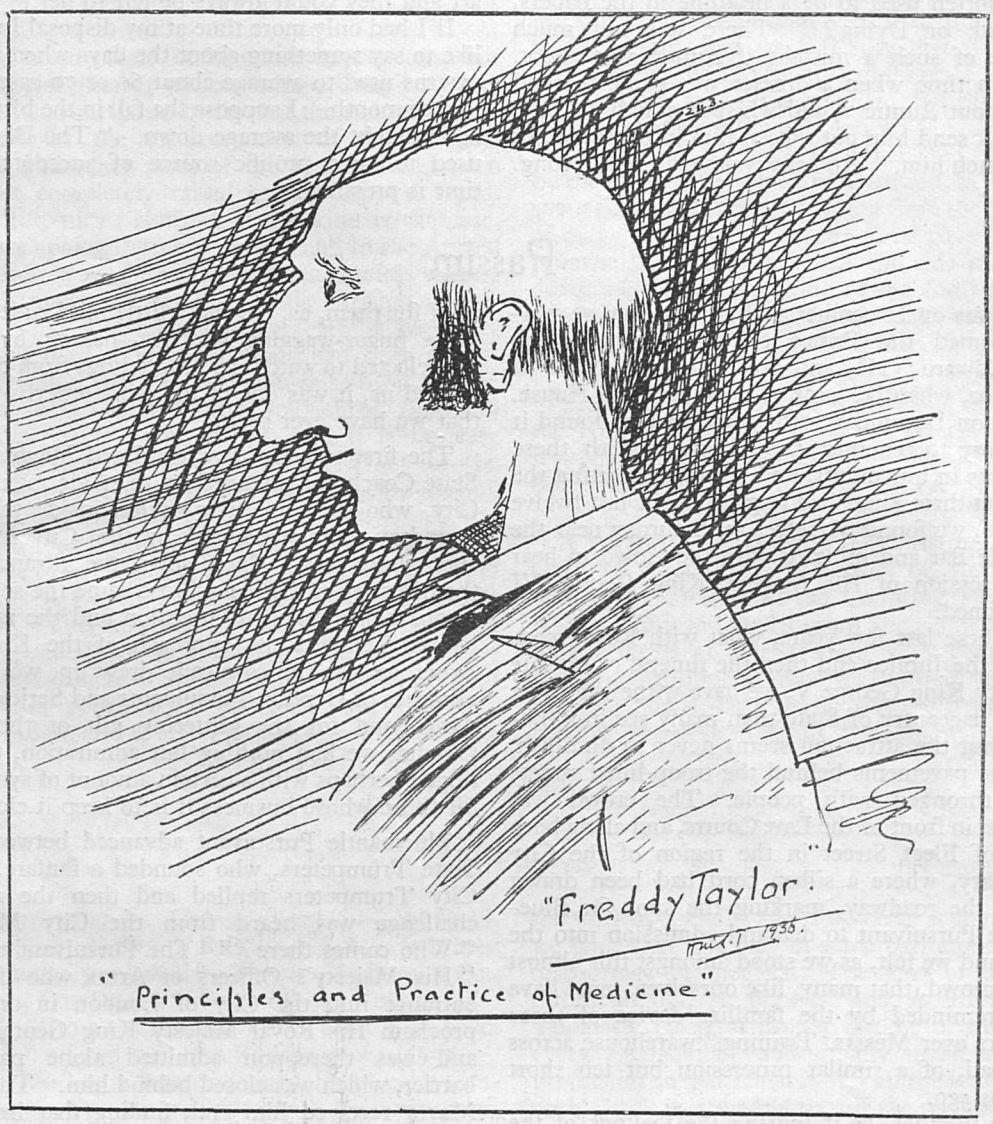
Red Cross Court was pulled down many years ago by order of the London County Council, because it was a hotbed of crime and violence. I suppose it would be somewhere near the mark to say that we used to get nearly a murder a month from there.

What a sight the old Front Surgery used to be on Saturday nights after the pubs closed! The routine was washing out the stomach, pouring from two ounces to half a pint or so of M.M. c. M.S. down the stomach tube, and then a little stimulation with the battery. There were some dressers who favoured the larger doses and used to take a turn of bandage round each trouser-leg as a precaution against a premature ignition.



In Retrospect.

By Wing-Commander Stanley Turner.



Drawn after Forty Years by Wing-Commander Stanley Turner.

No recollections would be complete without a mention of "Auntie." She had been on night duty for goodness only knows how many years. She used to occupy her time cutting up strapping in the women's surgery for a great part of the night. (We had an old semi-circle of tin heated by a gas-jet underneath for warming the strapping.) There often used to be a headline in the papers, "Drunk or Dying?" There was not much chance of such a mistake if Auntie was about. Many a time when a dresser was going to send a man out Auntie would whisper quietly to him, "Don't send him out; keep him in for the night and watch him." And she was very rarely wrong. There must be hundreds of the older generation of Guy's men who have good reason to remember Nurse Keogh, to give her her proper name. In the days when beer was cheaper and pubs closed later, drunks were much more frequent than they are now. Alcoholic Borough ladies require a bit of handling, but Auntie was a past mistress in the art and they could always be left to her.

If I had only more time at my disposal I should like to say something about the days when the six externs used to average about 60 or 70 cases each for the month. I suppose the fall in the birth-rate has brought the average down. "The District" used to be a prolific source of anecdotes—but time is pressing!

Passim

IT was on December 10th, 1935, that we welcomed the Prince of Wales, later King Edward VIII, and now, alas, the Duke of Windsor, when he came to open Nuffield House. It was on December 10th, 1936, that he found it necessary to renounce the Throne. With these thoughts in our minds, and scarcely crediting the fact that three kings had reigned in the last twelve months, we found ourselves on Saturday near the Temple Bar and mingled with the crowd to hear the accession of His Majesty King George VI proclaimed.

In these last few years, what with Royal weddings, the Jubilee and then the funeral of his late Majesty King George V, we have witnessed more of the pageantry of State than many see in a lifetime, but the attraction seems never to diminish, and the pavements behind the troop-lined streets were thronged with people. The crowd was thickest in front of the Law Courts, and along both sides of Fleet Street in the region of the City boundary, where a silken cord had been drawn across the roadway, marking the spot for Bluemantle Pursuivant to demand admission into the City, and we felt, as we stood amongst this almost silent crowd, that many, like ourselves, must have been reminded by the familiar device of three feathers over Messrs. Twinings' warehouse across the road, of a similar procession but ten short months ago.

The weather, as if sensing the feelings of the people, was fittingly dull, and though a few flags fluttered from windows, there was little sign of gaiety, and even the gilt on the coachman's hats was dimmed by a veil of mackintosh. There were policemen in plenty, some with helmets, some with cocked hats, some on horseback, some even on motor-bicycles, and many less distinguished ones on foot. But there was little need for them, as, beyond a little mild rudery and some finger-wagging and fist-shaking by some who elected to watch the proceedings from directly behind us, it was one of the most orderly crowds that we have ever seen.

The first to arrive was the Lord Mayor in his State Coach and attended by the Aldermen of the City, who took up their station inside the City boundary, being preceded by the City Marshal and trumpeters. Then down the Strand from the direction of Charing Cross came the sound of troops being called to attention and the rattle of hooves heralded the approach of the Kings-at-Arms, and as the cavalcade drew up, we caught glimpses of Heralds, Pursuivants and Serjeants-at-Arms, and for the glittering gilt of the State Coaches we had nothing but admiration, though tinged perhaps with a certain amount of sympathy for those whose business it is to keep it clean.

Bluemantle Pursuivant advanced between two State Trumpeters, who sounded a fanfare. The City Trumpeters replied and then the ancient challenge was heard from the City Marshal, "Who comes there?" The Pursuivant replied, "His Majesty's Officers of Arms who demand entrance into the City of London in order to proclaim His Royal Majesty King George VI," and was thereupon admitted alone past the barrier, which was closed behind him. The Lord Mayor received him and, finding that he really had got an order for the Proclamation to be read in the City, allowed the cavalcade to pass on, after a short interval to allow the trumpeters, now justifiably breathless, to race to the rear of the procession and remount their horses, and the officials of Westminster to break off from the main body. Norroy King of Arms read the Proclamation at Chancery Lane corner and in the distance

we heard the cheers of the crowd and the National Anthem for the first time in this reign.

Thus ended this historic ceremony, and, as we journeyed home through the gloom, we passed a pillar box, yesterday out of date, but to-day in the height of fashion, and wondered just how many of Edward's have been added to the three we know bearing his grandfather's initials.

WE often create unfortunate impressions, but in our last number we unwittingly caused a widespread and mistaken belief that the sum of money needed for the reconstruction of the Surgical Block and other parts of the Hospital had been almost completely raised by the Appeal Fund. Tut, tut, tut! Nothing of the kind is the case, and we apologise to our readers and to the Appeal Committee for the ambiguous and careless writing which made our remarks liable to such a construction. We did not mean that the necessary five hundred thousand pounds had been almost reached, but that the total sum raised was, on the other hand, as yet only sixty-three thousand pounds. It is to be hoped, and it is unlikely enough, that we have not deterred any of the munificently minded from subscribing by making them think the goal so nearly in sight.

Since our last number, however, we are glad to be able to say that a generous gift of ten thousand pounds has been given by the Bernhard Baron Trust. This magnificent sum has been given to be expended on the reconstruction of the Dispensary, which is to be named after Bernhard Baron in perpetuity. The total sum of money now raised, and readers, please do not mistake us, is a little over seventy-three thousand pounds, exclusive of Lord Nuffield's conditional gift of eighty thousand pounds, which will be given when the balance of the half-million needed has been subscribed.

LAST Saturday, the Rugby side, stimulated perhaps by the sudden relief of tension after a week of grave crises, celebrated their third victory of the season, and we feel sure that it will not discredit the recent attempts to increase our military strength, when it is recorded that this victory was at the expense of the Army.

As we have said, we were attracted elsewhere by the momentous affairs of State and, in our turn, saw a good deal of the Army, but from the accounts of many who watched it, the game gave excellent promise that after Christmas the side may settle down and show something of the form that was expected of it. Meanwhile we would congratulate them on this very fine performance.

THE Nurses' Christmas Dance will be held in the Nurses' Home on Tuesday, December 29th, from 8 p.m. to 12 midnight. We understand that fancy dress costumes may be worn if desired.

A VARIETY of delightful Christmas Cards, provided through the generosity of Messrs. Ash & Co., are on sale in the Counting House, the Wills Library and the Hospital Shop, and we would advise those of our readers who contemplate circularising opulent relatives with a view to a possible bonus, that these have been known to produce the desired result before now.

Reviews

The History of St. Thomas's Hospital. By F. G. PARSONS, D.Sc., F.R.C.S., F.S.A. In three Volumes, published by Messrs. Methuen & Co., Ltd., London. *Price* 10*s.* 6*d.* per Volume.

Vo. I.—From the Earliest Times until A.D. 1600. Pp. xii and 256 with 8 illustrations, 1932.

Vol. II.—The Seventeenth and Eighteenth Centuries. Pp. xii and 281, with 8 illustrations, 1934.

Vol. III.—From 1800 to 1900. Pp. xii and 274, with 9 illustrations, 1936.

WE owe an apology to Mr. Parsons and to Messrs. Methuen. Nearly two years ago we received the second volume of this history, and we have never reviewed it. The receipt of the third volume enables us to consider the work as a whole, and if we do so at some length we hope that this may in some part atone for our discourtesy and neglect. The story of any institution so old, so famous, and so alive as St. Thomas's Hospital cannot but be of interest to every Englishman, and to any member of our profession in particular. To all those connected with Guy's it is doubly so, for the second volume tells of the founding of our Hospital, and the third of the union and subsequent disruption of the schools of St. Thomas's and Guy's. We do not propose to go over again the story of the Hospital of St. Thomas the Martyr, as we covered it fairly completely in our former review.[1] We do, however, wish to consider once more the refounding of St. Thomas's Hospital after the

dissolution of the monasteries, as we believe this to be the origin of the voluntary hospitals as known in this country to-day. The Westminster Hospital has recently claimed to be the first hospital founded under the voluntary system. As it was founded some fifteen years before Guy's, and as the only two previous hospitals, St. Thomas's and St. Bartholomew's, were originally monastic institutions, it has every right to this claim. It was, however, founded on a principle that was already in existence.

The suppression of St. Thomas's lasted some eleven years from its surrender in 1540, as the Hospital of St. Thomas the Martyr, to its refounding by Edward VI as that of St. Thomas the Apostle in 1551. The moving spirit in the reopening would appear to have been Nicholas Ridley, Bishop of London. His is a difficult character to judge. It is hard in a time such as this to understand any character in a period such as the middle Tudor, when religion was mixed up with politics, when feeling ran high, and when everyone held to his opinion at the peril of his life. We see the same thing going on in Spain to-day. We might be kinder to individual Spaniards if we understood fully our Tudor history, and if we could appreciate equally the good qualities of Mary and Elizabeth, of Stephen Gardiner and of Nicholas Ridley. We might understand our own history better if we would study that of Spain to-day in an absolutely impartial spirit, without trying to find in every bit of news evidence for or against the wickedness of one side or the other. Was Nicholas Ridley the 'unassuming, self-effacing bishop and martyr' that Mr. Parsons (Vol. II, p. 140) calls him? Bishop and martyr certainly, unassuming and self-effacing we doubt. His visit to the Princess Mary does not suggest the latter. He was at Hadham, near Hunsdon, where the Princess lived. This was then within the diocese of London, so he thought her of his flock and conceived it his duty not merely to go and visit her, but also preach to her. The meeting has a pretty touch about it. She was very polite, 'and for a quarter of an hour talked to him very pleasantly,' and said, 'that she knew him in the Court when he was Chaplain to her Father.' She remembered a sermon he had preached and 'dismissed him to dine with her officers.' After dinner she received him again, and it was then that he told her of his desire to preach. 'At this her countenance changed,' and she firmly refused. She suggested a compromise: 'the door of the Parish-church adjoyning shall be open for you if you come, and ye may preach if you list, but neither I nor any of mine shall hear you.' This nettled the Bishop and he had another try, which roused the Princess, and she told him straight out what she thought of all the changes that had been introduced in the form of religion and the government of the Realm. To finish up, 'she asked the Bishop whether he were one of the Council: He answered, No. You might well enough, said she, as the Council goeth now adays.' This was a nasty one for the Bishop, and he soon left. Her parting words ran thus: 'My Lord, for your gentleness to come and see me I thank you; but for your offering to preach before me, I thank you never a whit.'[2]

Nor was he self-effacing when King Edward died. The Council kept his death secret, but Mary heard of it and wrote to ask why she had not been told, since she was heir as provided by Act of Parliament and by the testament and last will of her Father. She pointed out that there was no true subject of the Realm that could or would pretend to be ignorant of the fact that she was heir; so the Lords of the Council put Ridley up at Paul's-Cross to preach to the people about the succession. There is an epitome of this sermon in Fox's "Book of Martyrs" (Vol. III, p. 13, 1684), which seems a reasonable exposition of his point of view. Certainly it does not warrant Frende's statement that he "shrieked" at her.[3]

At a time when disputations were the order of the day, Ridley was the greatest disputer of them all. The writer of the preface to his published conferences with Latimer during the time of their imprisonment says: 'He came when he was effectually called; and from the time of his calling became a faithful labourer, terrible to the enemies for his excellent learning, and therefore a meet man to rid out of the Lord's vineyard the sophistical thorns of the wrangling adversaries, which did well appear in all disputations and conferences that were in his time.'[4] These words were not written of an unassuming man. Nor will such an epithet fit the glorious testimonial that he received from one of the commissioners at his last examination:—

> *Gloucester.*—If you would once empty your stomach, captivate your senses, subdue your reason, and together with us consider what a feeble ground of your religion you have, I do not doubt you might easily be induced to acknowledge one church with us, to confess one faith with us, and to believe one religion with us. For what a weak and feeble stay in religion is this, I pray? Latimer leaneth to Cranmer, Cranmer to Ridley, and Ridley to the singularity of his own wit; so that if you overthrow the singularity of Ridley's wit, then must needs the religion of Cranmer and Latimer fall also [5]

And yet a character that is neither unassuming nor self-effacing may have much softness and kindness in it. This is seen in

the note sent to Fox after the publication of his great book by Dr. Turner, Dean of Wells. It includes a description[6] of Ridley at first hand that is probably the only one extant from the pen of one who knew him personally and well. They both came from Northumberland, they were at Pembroke College, Cambridge, together, and in their theological exercises were opponents.

> As to his memory and manifold knowledge of arts and languages, though I might myself be an abundant witness (for he first instructed me in a fuller knowledge of the Greek language), yet beyond my testimony all Cambridge men, to whom he was well enough known, will and can bear witness to it. How strong he was in confuting and overthrowing any argument, yet without any vain glory or parade of his learning, not only I, but all those who encountered him, plainly felt, unless indeed those whom he deemed more eager for glory than is meet (for such he repressed). In his manners he was most placid and saintly, yet without any hypocrisy or monastic severity; for very often he would exercise himself with me both with the bow and at hand ball.

He was a keen administrator, as well as a keen disputer. He toured his diocese and went into the affairs of every parish, seeing that the new laws that had been passed were carried out. He was decisive on the difference between an altar and a table, a matter that has remained one of dispute unto this day.

We have spent some time upon the character of Nicolas Ridley because we believe with Mr. Parsons that his was the brain and his the energy from which arose our voluntary hospital system, a system that spread to the whole country, and that served it well for four hundred years. As we read accounts of strenuous days, we imagine that the time of everyone was constantly taken up by the disputes and events that send these days down to history. We forget that the greater number of the population carried on their tasks much as we do in the duller times. During the French Revolution Paris was not entirely taken up with the rumble of the tumbrils that is the chief sound that has come down to us. The murmur of the Halles went on as before and as it has done ever since. On the morning before Danton drove to the Place de la Revolution, Parisian housewives were haggling over the price of veal and turning over green-stuff for salad, as we may see them to-day. So it was in London when the two religions, the old and the new, were striving one with another for mastery. Those who were unable to care for themselves in the stress of a life that was becoming more complicated were encumbering the City of London. The reform of the religious houses, long overdue, had thrown out of existence all the previous organisation for their care. The disgraceful way in which the wealth thus freed was squandered had done nothing to replace it. The Lord Mayor and Aldermen of the City of London took the matter in hand, guided by their Bishop, who found time from his disputations and his clerical administration for the purpose. The exact details are shrouded in the veil of time. There is a general tradition that on one occasion Ridley was preaching to the King and Council. What Ridley said we do not know. None of his sermons are extant. One authority is Burnet, who writes :—

> In the Time of his sickness, Bishop *Ridley* preached before him, and took Occasion to run out much on Works of Charity; and the Obligation that lay on Men of high Condition to be eminent in good Works. This touched the King to the Quick: so that presently after Sermon he sent for the Bishop. And after he had commanded him to sit down by him, and be covered, he resumed most of the Heads of the Sermon, and said, he looked on himself as chiefly touched by it: He desired him, as he had already given him the exhortation in general, so to direct him how to do his Duty in that Particular. The Bishop, astonished at this Tenderness in so young a Prince, burst forth in Tears, expressing how much he was overjoyed to see such Inclinations in him: But told him he must take Time to think on it, and craved leave to consult with the Lord Major and Court of Aldermen.[7]

We also may be astonished at this young Prince; but both he and his cousin Lady Jane Grey were very remarkable children; also he probably knew he had not long to live 'In the beginning of *January* this Year, he was seized with a deep Cough.' 'He was so ill, when the Parliament met, that he was not able to go to *Westminster*,'[7] and this was the occasion of Ridley preaching to him at Whitehall. Burnet's "History of the Reformation" was written in 1681, a hundred years after the events it describes. It must not be trusted too implicitly, as later on in the same page he makes a mistake by saying that St. Bartholomew's was the hospital that King Edward then founded, and that 'He also confirmed and enlarged the grant for the Hospital of *St. Thomas* in *Southwark* which he had erected and endowed in *August* last' (viz., 1552). Actually, St. Bartholomew's had been refounded by Henry VIII on the 23rd of June, 1544, by letters Patent that are still in possession of that hospital.[8] In general outline, however, we feel that we may trust Burnet, and the classification made by the Lord Mayor and Aldermen may last for all time :—

> They considered there were three sorts of Poor; such as were so by Natural Infirmity or Folly, as impotent Persons, and Mad-men, or Ideots; such as were so by accident, as Sick, or Maimed Persons; and such as by their Idleness did cast themselves into Poverty.[9]

These three classes we who are fit in mind and

body, have to bear upon our shoulders as a part of the responsibility that must always accompany success in life. It is not quite clear exactly what happened. Froude tells us that Christ's Hospital and St. Thomas's were founded first, and Bridewell a little later,[10] and he prints in a footnote a special letter about the latter to Cecil on the matter. Mr. Parsons, however, proves that they were all founded at once by a common Foundation Charter for the 'hospitals of Edward the Sixth, King of England, of Christ, Bridewell, and St. Thomas the Apostle.' It is a lengthy document taking up twenty pages of the book in the style that lawyers alone can read and they would probably refuse to do so as it has been scattered with commas and semi-colons which no self-respecting lawyer can abide. We suggest as an explanation that while the arrangements were being made Ridley got wind that they might fall through by the loss of Bridewell, for in the letter he says, 'There is a rumour that one goeth about to buy that house of the King's Majesty, and to pull it down. If there be any such thing, for God's sake speak you in our Master's cause.'[10] The fear of the loss of the whole scheme would make him write such a supplementary letter about Bridewell. The Charter is dated June 26th, 1553, and the King died ten days later. Had it not been completed we wonder what might have happened to the voluntary hospital system in England. With Ridley in the Tower 'in those daungerous daies of Quene Marie: when there was nothing ells looked for but downe with them, downe with them,' there would have been but small chance of their being founded had the Charter been completed a month later.

Christ's Hospital we all know. It used to be behind the houses on the north side of Newgate Street. Those were days when travelling in London was an adventure, with the express City Atlas bus going from Swiss Cottage to London Bridge with four horses and a fare of sixpence any distance or all the way. After you had passed the old prison on the right, sitting on your 'garden-seat'—the old 'knife-boards' were not used for the 'express'—you turned your head to the left to await a gap in the buildings, where a post office now is, and you could see the Blue-Coat boys kicking a football about in the school-yard with the tails of their coats tucked up into their belts. Bridewell is less well known. It was situated near the Blackfriars Monastery. This was where the offices of *The Times* newspaper now are. Behind them is the Apothecaries' Society and the Hall of this is on the site of the Refectory, where the monks took their meals. Henry VIII stayed at the monastery when Charles V came over to discuss with him the question of his marriage with the young princess Mary, then a child of nine. Charles V was lodged in the Palace of Bridewell, and Henry built a gallery from Palace to Monastery so that King and Emperor could pass from the one to the other without let and hindrance. The long, narrow room where the candidates wait for their *vivas* at the L.S.A. examinations, is still called alternatively the Library and the Gallery. It represents the position of the gallery built by Henry VIII, and therefore Bridewell Palace was the other side of Water Lane, where Spiers & Pond's shops and the railway now are. It is probable that the meeting of the two monarchs was the last time the Palace of Bridewell was used before it was handed over to the City for the unemployed.

St. Thomas's was not handed over; it was purchased by the Lord Mayor and Court of Aldermen, and subscriptions were raised from the City Companies and private individuals for the charity. Mr. Parsons gives us some extracts from the Patent Rolls, which tell us the purposes for which the hospital was founded. Thus we read, 'Grant further that the said hospitall of Southwarke should in future be the place and house for relieving and sustaining the poor there and shall be called the poorhouse of Southwarke next London of the King's foundation.' And again 'and the King wills that the residue of the revenues aforesaid, beyond the stipends and fees of the officers and ministers and the charge of necessary repairs, shall be expended yearly and from time to time in the maintenance of the sick and infirm poor of the said hospitall and poorhouse.' We see then that the Governors of St. Thomas's were responsible for admitting to their wards not only the sick poor of the Borough of Southwark but also the infirm which, for the most part, would mean the aged. It is a matter of interest to speculate upon how and when the admission of elderly "chronics" ceased. Let us for the present consider those 'stipends and fees of the officers and ministers,' which were a charge upon the funds of the institution. In the extract from the Patent Rolls from which we have already quoted we read:—

> 'And the King wills that out of the issues of the premises shall be maintained not only two ministers for celebrating divine services and administering the sacraments both to the poor and to the officers and the ministers of the poorhouse and to the parishioners of the parish of St. Thomas, but also two women or sisters to attend to the poor and wash their clothes when necessary and convenient; also there shall be maintained in the said hospitall and poorhouse one porter to open the gate to let the poor in and out, one expert surgeon to cure the diseased who

> are received therein, and one honest, sober and pious man who from time to time may be the surveyor and deputy of the said mayor, &c., not only to survey the hospitall and poorhouse but also to manage the revenues.'

We see then that the Lord Mayor and Court of Aldermen were only bound to appoint one surgeon. Actually they nominated six. Mr. Parsons is not quite sure that all took up their appointments, and it seems that what we should now call the staff originally consisted of four surgeons. Their salaries were fixed at £15 per annum. It was not until 1566 that a physician was appointed 'to minister to the poor at his discretion and also at the instruction of the Surgenttes.' He was paid £13 6*s*. 8*d*. and a house. Whether the latter was an emolument is not quite clear. On the one hand he was on May 28th, 1571, threequarters in arrears for rent; on the other, when he left the house he was allowed £2 13*s*. 4*d*. in lieu, which brought his pay up to £16. The difference between £15 and £16 may represent the difference in the purchasing power of money between 1556 and 1571. The point of interest is that the physicians and surgeons of St. Thomas's Hospital were salaried officials. We believe that they remained so, that Thomas Guy adopted the custom, and that, whatever the sums paid to the assistant physicians and surgeons may be, the forty pounds paid annually to physicians surgeons and other members of the Staff in accordance with Guy's will are salaries, and are not the "nominal honoraria" that it has become the custom in recent years to call them. At the moment the matter is one of academic historical interest. It may become one of practical importance when the question of Voluntary Hospital Finance as a whole comes to be considered as it must be at some future date. For this reason we propose to state reasons for our conclusions on this point:—

When the officers were first appointed for St. Thomas's Hospital the list of chirurgeons followed on that of the Hospiteller, the Clarcke, the Stewarde, the Buttler and the Cooke. There is no distinction. This was on October 6th, 1552. By November, 1557, there was a petition from the surgeons for the 'beatering of their fees,' which was answered civilly but evasively. When one of the surgeons died, a part of the first year's salary of his successor was paid to the widow, and at the same court John Brygges was allowed to practise his art and faculty without 'stypent,' and, if satisfactory, was to have the next vacancy as 'surgent.' There is, therefore, no doubt as to the origin of these payments, and there is no sign of any change during the remainder of the sixteenth century. As a result of further agitation these salaries were doubled in 1586, and a further rise was given them in 1575 up to £31 13*s*. 4*d*. The physician pleading "that his paines is very great" also got an increase. With the turn of the century the same thing happened again, but apparently nothing came of it.

In 1629, however, a letter was received from the King (Charles I) asking whether the salaries of the Doctor, Surgeons and Apothecaries were not too little. As a result of that the Apothecary's salary was raised to £60 a year, which we cannot think excessive when we remember that out of it he had to provide the hospital with drugs. The question of the salaries of the doctor and surgeons was postponed, being referred to a sub-committee, with the result that it was not until 1631 that the former was raised by £5 and the latter by £6, so that in a return sent to the Privy Council, 1632, we find that 13 sisters were paid 40*s*. each; doctor, £30; apothecary, £60; three surgeons, £36 each; stone cutter, £15 extra; Herb woman, £4. Commenting on these increases, Mr. Parsons writes, 'This, when we consider how rapidly the cost of living was rising in those days and the greatly increased sums which the hospital was receiving from its lands, does not seem a too generous answer to the King's Appeal.' After that we hear no more about payments to the staff until the vexed question of pupils' fees came to the fore; but we suspect that there was another increase from £36 to £40 at some date between the Restoration and 1725, when Thomas Guy fixed the payment for the physicians and surgeons in his hospital at the same amount, at which they have remained ever since. We suspect that in the eighteenth century the money to be made out of students' fees became so considerable that it was no longer worth the trouble of the Staff to agitate for any increase of salaries from the hospitals. Such a thing might even have raised the question as to whether all pupils and apprentices' fees should not be paid into the common fund.

To-day forty pounds does not seem an adequate salary; let us, however, consider, what it meant in the early days of the eighteenth century. Forty-five years later the "Deserted Village" was published by Oliver Goldsmith. This poem is too well-forgotten to-day. It tells of:—

> Sweet Auburn! loveliest village of the plain,
> Where health and plenty cheered the labouring swain.

It is well known that the scenes here depicted were those that Goldsmith had known as a boy. He never saw them again once he had left Ireland, but he always dreamed in failure and success, in poverty and in wealth, that he might go back to them:—

I still had hopes, my long vexations past,
Here to return—and die at home at last.

The description of country life has remained unsurpassed in English poetry, even by Gray's "Elegy":—

Sweet was the sound, when oft at evening's close
Up yonder hill the village murmur rose;
There, as I past with careless steps and slow,
The mingling notes came softened from below;
The swain responsive as the milkmaid sung
The sober herd that lowed to meet their young;
The noisy geese that gabbled o'er the pool,
The playful children just let loose from school;
The watchdog's voice that bayed the whispering wind
And the loud laugh that spoke the vacant mind;
These all in sweet confusion sought the shade,
And filled each pause the nightingale had made.

It is a sad thing to see a village that is disappearing into nothingness. The ancient church crumbling into decay, or saved therefrom by the town-gained wealth of some descendant that bears the name of one of those slumbering in the untidy churchyard. Nearby the village pond, muddy and floored with empty tins. The rectory, sold cheap to some recluse who can neither afford to keep it up nor cares to tend its gardens and its orchard. The rectory farm, occupied by a factor —worthy man—the manor farm across the way empty and crumbling away with dry-rot. No social life of any sort. In one house the widow of a broken farmer holding herself aloof because she is a lady. The shop purchased by a consumptive-looking author and a young wife who have nothing in common with the villagers around them. The only well-kept house an ancient cottage down a lane owned and occupied at week-ends only by a prosperous dental surgeon from a distant town.

Such may be seen to-day within a few miles of London. Sweet Auburn had one advantage over it, a church in contact with the minds and hearts of those that lived within it:—

His house was known to all the vagrant train,
He chid their wanderings, but relieved their pain;
The long remembered beggar was his guest,
Whose beard descending swept his aged breast;
The ruined spendthrift, now no longer proud,
Claimed kindred there, and had his claims allowed;
The broken soldier, kindly bade to stay,
Sat by his fire, and talked the night away;
Wept o'er his wounds, a tale of sorrow done,
Shouldered his crutch, and showed how fields were won.
Pleased with his guest, the good man learned to low,
And quite forgot their vices in their woe;
Careless their merits, or their faults to scan,
His pity gave ere charity began.

The beautiful character here depicted was Goldsmith's brother:—

A man he was to all the country dear
And passing rich with forty pounds a year.

Here, then, is the reason for our diversion, which our fondness for the poem has led us to prolong. He had, in addition, 'a modest mansion,' from the garden of which he would get a considerable amount of produce. True that the Rev. Henry Goldsmith was one who despised fame and fortune,[11] and yet that forty pounds was enough not merely to make him 'passing rich,' but also to afford him happiness in his obscurity.[11] To the surgeons of St. Thomas's and of Guy's at the time of the founding of the latter it must have afforded a reasonable return for the time put in at the hospitals.

The story of Dr. Johnson affords us confirmatory evidence on this point. Richard Savage always appears to us to have been a particularly nasty little bit of human nature. We say this while making all allowances for what he believed to be his origin, with the consequent enmity against the world from which he suffered, and which left a lasting effect upon his mind. In spite of this, and perhaps because of it, 'he was for some time the intimate companion of Johnson,'[12] who wrote his life at a length and in a detail that alone keeps his works from obscurity. This worthless creature was throughout his life kept by different people, first by Mrs. Oldfield, the actress, then by Queen Caroline. The sum which the first two ladies allowed him was fifty pounds a year, and of this Johnson writes in one place[13] that 'it might have kept an exact œconomist from want,' and in another he speaks[14] of it as 'a salary which, though by no means equal to the demands of vanity and luxury, is yet found sufficient to support families above want, and was undoubtedly more than the necessities of life require.' After the death of the Queen in 1737, Pope raised a subscription for him and paid twenty pounds a year to it himself. It did not, however, amount to the fifty pounds that he previously had had. 'Mr. Savage, however, was satisfied and willing to retire, and was convinced that the allowance, though scanty, would be more than sufficient for him, being now determined to commence a rigid œconomist, and to live according to the exactest rules of frugality.'[15]

These extracts from literary history show us that at the time of the founding of Guy's Hospital forty pounds a year was a reasonable salary for the work done and not a nominal honorarium; and if it be adduced against this that Thomas Guy left eighty pounds in his will for the Chaplain it must be remembered that this was a whole-time post and that in those days the clerical profession,

except for the country clergy, was a highly paid one. We do not mean for a moment that the forty pounds gave the same return for his time as Mead could earn in his practice. It is doubtful whether anyone would ever expect to pay for hospital services at the same rate that a busy practice can bring in, certainly not at the earning capacity of one who was as successful financially in his own century as Hans Sloane had been in the previous one and Wm. Gull was to be in the following.

The introduction of the name of Dr. Mead brings us to the founding of Guy's Hospital, for Mead was to Guy's what Ridley had been to the three Royal Hospitals—the guide to the founder, and possibly the proposer of the scheme.

At the beginning of the eighteenth century the Lord Mayor and Corporation of the City of London were the real Governors of St. Thomas's, with Christ's Hospital and Bridewell. They delegated their responsibilities to the Court of St. Thomas's. By a resolution passed by the Court of Aldermen in 1699, no one could be a governor of any of the four hospitals that was not a freeman of the City, and no one (other than an Alderman) could be admitted governor of more than one hospital. Under the Court of St. Thomas's was a Grand Committee, and it was the practice of this Committee to send green staves to such persons as it thought fit to be governors. These green staves became the mark of office, and one such was sent on September 22nd, 1704, to Thomas Guy, but he does not appear to have taken his seat upon the Court until April 30th, 1707, which may be considered as the first day on which this remarkable man took any effective action in the care of the sick and infirm. That he was already a person of some importance is shown by the fact that he owned the title of Esquire. Mr. Parsons gives us an interesting insight into the use of this. 'At this time those governors who owned the title of Esquire were carefully distinguished from, and at one time preceded, those who were only addressed as Mister. This practice extended from 1655, before which they were all Misters, to 1815, after which they all became Esquires.' He began at once to take an active interest in the Hospital, for during that year he 'built a block of three wards, costing £1,100, which formed the north side of a new square,' and this had an influence in stimulating his fellow governors, for at the end of 1707 'another governor, Thomas Frederick, Esq., offered to build a second block like it.' Increase of capital expenditure, however, always means an increase in maintenance, and as a result of building these new wards the governors were asked to contribute to the cost of maintaining them. 'Guy promised £100 a year during his lifetime.' On January 26th, 1715, 'Dr. Mead's resignation was received, and he was made a governor, the first instance of a retired member of the Staff receiving that honour.' Perhaps from this day we may date the conception of Guy's Hospital. Mead was one of those extraordinary people that the medical profession throws up from time to time, and who are successful from whatever point of view you may consider them Professionally, financially and socially his success rested upon a sure foundation. Further, he was one of those of whom it may be said that with all their success they are quite unspoiled. Besides being a governor of St. Thomas's he was also a governor of St. Bartholomew's, which shows that the rule against anyone other than an Alderman being a governor of more than one of the City's hospitals was relaxed. To us at Guy's he is of interest through his friendship with our Founder. The exact nature of this we do not know. Mr. Parsons merely says in speaking of Dr. Mead, 'It was largely owing to him that Guy's Hospital was founded; for he persuaded the bookseller, Guy, who was also a benefactor of St. Thomas's, to devote his large fortune to that object.' He gives us no references or other evidence of the association. The well-known picture of the two of them studying the plans is evidence of its existence; but it tells us nothing of its nature. Was this one of those intimate friendships between a medical man and another with a different task of which there have been many since St. Paul wrote, 'Luke, the beloved physician, is with me'? Was there a professional as well as an amicable relationship between the two, or was the association a mere business one? This question has little or nothing to do with St. Thomas's, and so Mr. Parsons does not go into it, nor will we do so on the present occasion.

We quote in full Mr. Parsons' description of the founding of our Hospital. Writing about the Minutes of the Court of St. Thomas's for May 10th, 1721, he says :—

> Now follows this very important entry: "Our worthy governor and benefactor, Thomas Guy, Esq., intending to ffound and erect an hospital for incurables within the Close of this hospital, in the parish of St. Thomas's, we have agreed to grant a lease to him, or such person or persons as he shall appoint, of several parcells of ground in the said parish and within the close of this Hospitall lately held of this Hospitall upon several leases under several ground rents, amounting to seventeen pounds and ffourteen shillings, per annum, for several terms of years yet to come, which are purchased in by the said Mr. Guy, or in trust for him for the term of One Thousand Years from Christmas last at £30 per annum, tax free."

It is said that this scheme of Guy's was suggested by Mead and no doubt the latter's idea was that the new hospital should act as an infirmary to relieve St. Thomas's from the task of treating chronic cases, and thus provide the staff there with interesting patients upon whom to practise and teach.

This probably was Mead's professional point of view, but the argument which would have appealed most strongly to Guy was the more philanthropic one of providing a place where these poor incurables might be cared for when the rules of the hospital obliged them to leave St. Thomas's.

Had Guy intended to found a new general hospital he would never have selected a place so close to St. Thomas's but would have chosen one in the eastern or western parts of London, which at that time were without hospitals. He must have realised that to place two large general hospitals side by side was a waste of energy which must lead to friction and rivalry and that, sooner or later, one of them would be put to the trouble and expense of moving away to some spot where the need for it was greater.

But, although there can be no doubt that the idea in Guy's and Mead's minds was that the former's new hospital should act as a specialised colleague of St. Thomas's, no complaint of any kind can be made against the governors of Guy's for departing from it. They had a perfectly free hand, as the following extract from his will, which is quoted in full in Wilks' and Bettany's *History of Guy's Hospital*, proves.

"And my mind and will further is, that if my said executors and trustees shall not find cause, or, on any account whatsoever, not think fit to keep all or great part of the beds or wards in the said intended hospital filled and supplied with sick persons deemed or called incurable, as aforesaid; it shall and may be lawful for them to cause any number of the said beds or wards to be filled and made use of, in like manner and with like patients, as the beds in the hospital of St. Thomas are ordinarily used."

Guy, in his will, desired that Sir Gregory Page, Bart., should be the first president of his hospital and Charles Joye, Esq., the first treasurer; and, on May 16th, 1724, the latter was made treasurer of St. Thomas's as well; so that the two hospitals had one treasurer between them. The court at St. Thomas's welcomed the appearance of what we would like to describe as its daughter in the following words.

"The court gives hearty thanks to Thomas Guy, Esq., for his unparalleled bounty and benefaction in his several great gifts to this Hospital and in his erecting at his own charge another Hospital so great and useful as is that which he is now carrying out for incurables."

With the founding of Guy's we go back to the old classification of the Lord Mayor and Court of Aldermen. We wonder whether Mr. Parsons is right in attributing to Mead the desire of getting rid of the "chronics" in order to have 'interesting patients upon whom to practise and teach.' Guiding the aged and the incurable gently down the slope between life and death is one of the highest branches of our art. It is not devoid of interest. It would be well if it were more taught. It forms one of the most important functions of the general practitioner; perhaps the one for which, if he do it well, he receives the greatest love and gratitude in the hearts of those for whom it is his privilege to care. It is possible that Mead recognised the need, from an administrative point of view, of the segregation of one type of case from the other; but we wonder whether the entire removal from teaching of the very cases that the practitioner has to treat was beneficial to medical education during the long period that this was designed to turn out ready-made general practitioners. To-day we are in an interim stage. We should no longer attempt to do this; but our curriculum has lagged behind the change in the lives of the profession. It is doubtful whether even 50 per cent. of all men (and women) who qualify finally take up general practice; it is more doubtful whether into this one sphere of medical activity the newly qualified should be flung with all the responsibility of qualification, but without the guidance of a senior. It is clear to-day that the segregation of the infirm is an essential administrative necessity. It may be that Mead showed his greatness in this by being in thought two hundred years before his time. Every Guy's man will be thankful that the original ideas of Mead and of the Founder were not to last for ever. Had this happened there would still have been *the Hospital founded at the Sole Cost and Charges of Thomas Guy, Esquire*, but there would have been no "Guy's." We wonder how we escaped our non-existence. Was the piece of Guy's will that Mr. Parsons quotes put in by a cautious solicitor when drafting, or was there some other influence acting upon the old man? Mr. Parsons seems to think there was. Though Mead had originally advised him to put his hospital under the Governors of St. Thomas's, he was 'persuaded to appoint a separate Court of Governors.' If this were so, the insertion of the paragraph in Guy's will, which has become the Charter of our freedom, was perhaps the result of this alternative influence. We are not sure that we have interpreted Mr. Parsons correctly on this point and, if we have, we are not clear as to his evidence, which all goes to show that there are plenty of points still unsolved which are worthy of the attention of any Guy's man that wishes to dig into the past.

According to Mr. Parsons, it would not have mattered much 'had they remained merely hospitals.' 'The eighteenth century showed many attempts on both sides to find a way by which the two hospitals might work together in harmony.' 'When they became medical schools, the sense of

rivalry was greatly increased, and, though the end of the century knew them as the United Hospitals and the pupils were shared more or less between them, it was clear that the bonds uniting them were not very strong and were liable to snap whenever extra strain should be put upon them.' Before proceeding to the break let us epitomise the early signs of medical education at St. Thomas's.

There is a tradition of an apprentice in 1561, but the first student on record is John Browne, who had a somewhat notorious career, and who had been pupil some time between 1644 and 1670 to Mr. Thomas Hollyer, Senior, one of the surgeons. In 1684 the Court decided that "No skillet carriers or helpers to the Sisters are to be allowed except such as the President and Treasurer authorise." This resolution is repeated in the Orders for 1700 in the form 'no skillet carriers are allowed except at the surgeons' charge.' Mr. Parsons thinks these must have been some type of dresser among the pupils. He does not seem to have much evidence on the point; but we have not been able to pursue it further. By this date, however, the post of dresser had developed, for the same orders lay down that 'None but apprentices at Surgeons' Hall are allowed to dress for the Surgeons.' Medical education underwent an important advance in 1716 when the apothecary was allowed one apprentice a year, and in 1717 it was decided he might have two. If the apprenticeship lasted five years, this would mean that he had ten students working under him. It is noticeable that all references to pupils and apprentices are in relation to the apothecary and the surgeons, none to the physicians. We read that in 1827 each physician took on an average £199 per year in pupils' fees; but there is no record of when they began to take a part in the instruction. Mr. Parsons thinks that in 1725 the Governors were deliberately trying to keep down the number of students. In this year Guy's Hospital was founded. Whether it was the result of this or whether it were the mere development of medical education is not clear, but it was from this date some sort of organised medical education arose :—

> . . . the pupils were the private property of the surgeons and apothecary and were not organised, even had they been fit, to help in working the hospital as they do now.
>
> They were nominally attached to one surgeon but were allowed to follow the practice of his colleagues and, until 1760, to attend the operations but not the practice at Guy's, while the Guy's pupils had the same privilege at St. Thomas's.
>
> Their fees of 24 guineas for twelve months or 18 guineas for six months were collected by the apothecary of St. Thomas's from the pupils of both hospitals, and the total amount was divided equally between the six surgeons and two apothecaries. The original entries of all their names, as well as the fees which they paid, may be seen in the muniment room of St. Thomas's Medical School to-day.
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> In 1724 the St. Thomas's surgeons had taken more than their quota of pupils, and the matter was brought up at the grand committee, which decided on November 6th, that: "When the respective times (of the pupils) expired the surgeons were not to take any more until the numbers were reduced to three for each surgeon, and then they were only to take such as should be approved and licensed according to the order of the general court of March 17th, 1702."
>
> This pronouncement is worth noting, because the governing body of the hospital so seldom looked up its old minutes before coming to a decision.
>
> Lectures upon Anatomy, with its bearings upon Surgery, were given at St. Thomas's, and these were open to pupils of both hospitals, upon paying a special fee. At St. Thomas's, too, was the dissecting-room where again a fee was charged. Guy's responded by giving lectures on Medicine and Chemistry and thus a pupil of either hospital got a good deal of his training at the other; though he could only attend the surgical practice of the one at which he entered.
>
> On May 26th, 1726, each of the three surgeons was allowed to take four pupils instead of three, and the apothecary, three instead of two. The register of pupils—they were never called students at this time—has been kept since 1723, and shows that in 1724 there were entered twenty pupils. At that time each surgeon might only have three pupils and the apothecary only two at a time, so that if they limited the time for teaching each pupil to six months they could only just manage to take twenty in one year without exceeding their allowance; since the apprentices, who stayed several years, were included with the pupils. No doubt they hoped that the supply of pupils was likely to increase, and this is the reason why in 1726 they asked to be allowed to take a larger number.
>
> As a matter of fact the entries did not come up to their expectations for several years, since we find that in 1734 only sixteen entered, in 1744 twenty-three, in 1754 twenty-four, and in 1764 thirty-one.

Apparently these arrangements worked well until 1760, when a quarrel took place about the pupils' right to attend the operations at both hospitals, and a barrier was put up between the two hospitals, and so it was until 1768, when the barrier was removed and the reciprocity was reintroduced and extended, as the pupils of one hospital were not only allowed to attend the operations at the other, but also all the other practice. What the other practice consisted of we do not know, the only reference to it is the record by Lettsom of his round with Mark Akenside, at which he was thoroughly disgusted. The round consisted in looking at the patient's tongue, feeling the pulse, and in writing an elaborate prescription. To-day the physician reads instead elaborate descriptions sent to him from the laboratories. It was the operating theatre

that was the centre of the student's life. To a certain extent it still is. There is a certain false glamour in it which attracts the young, and of this perhaps he talks and writes to colleagues and relations, so that this part of his work gets handed down while the more solid learning of the wards is but absorbed into his system. We must also remember that in those days that most human part of a hospital's activities, the out-patient department, was not yet in existence. The operating theatre then may have held a greater place in the student's imagination than it does with many to-day. Be that as it may, it was from occurrences in the operating theatre that the final schism between St. Thomas's and Guy's arose.

> In 1800 there was a notice in the theatre directing that the four dressers of the surgeon operating should stand round the table and that the twenty dressers of the other surgeons of St. Thomas's and Guy's should occupy the first three rows of seats, while the pupils stood in the semi-circular tiers above them. We know that in 1800 there were 130 pupils in the two hospitals, to provide room for whom must have meant great over-crowding when a spectacular operation was to be performed.

The separation of the United Hospitals in 1825 appears to have been purely due to administrative reasons. No serious quarrels were in existence, but the innumerable pinpricks were present that must always arise when an administration has lagged behind the development of any new form of mental activity; the ostentatious cause was the refusal of St. Thomas's to allow Sir Astley Cooper to nominate his nephew Aston Key to succeed him as joint lecturer in Anatomy and Surgery. Sir Astley resigned his post on January 26th, 1825; and 'on March 11th, 1825, Mr. Harrison told the Committee that the existing arrangements between Guy's and this hospital in regard to pupils must be considered as at an end on the part of Guy's Hospital.' It was then that the Medical School of Guy's Hospital was founded. The parting from St. Thomas's was, however, amicable, for at the same meeting 'a resolution was then passed that the surgeons' pupils of Guy's Hospital should continue to have the privilege of seeing the practice of the surgeons of this hospital, provided that the St. Thomas's pupils were given the same privilege at Guy's.'

The final schism was, however, anything but amicable. However it arose, and whatever were the extenuating circumstances, and whether the surgeon of St. Thomas's lost his head are matters of small moment beside the fact that the scene was a scandal that could not have been allowed to be repeated. To put it briefly, the Guy's men forced their way into the St. Thomas's operating theatre. It was on December 16th, 1836. They had been asked to produce their tickets in order to prevent gate-crashers from another school getting in. 'The custom of showing tickets had lapsed and the Guy's men resented its revival and, coming as usual ticketless, were refused admission.' 'The rejected ones forced their way into the theatre, already nearly full, and broke through all tradition by filling the well where none but the surgeon, his dressers and visiting surgeons ever stood.' In the end the police were called by Mr. Smith, the surgeon, and six of the Guy's men were summonsed. Three of them were fined £10 each at the Kingston Assizes and were bound over for two years. Mr. Parsons has been very good to us at Guy's in his description of this episode. He has minimised and made every excuse for the action of the Guy's students. He has brought out that 'the St. Thomas's authorities acted rather high-handedly and that Mr. Smith lost his head.' We thank him for it. As so many of us thank him for the courteous and gentle, yet firm, way that he has dealt with us in examinations.

A custom reputed to date from the schism lasted until recent years. When the writer of this review was a ward clerk his chief duty during "take-in" week was to attend in the Surgery and to offer to every Bobby that brought in a case a pint of beer—it was surprising how many took ginger "in lieu." The beer was served to them out of a cask in certain very battered pint pewter pots, and was paid for by the dresser for the week. It is said that this custom arose after the schism as a form of bribery to the police to bring the cases to Guy's rather than to St. Thomas's, that this bribery was supplemented by free fights between the dressers of the two hospitals for a "good" case, and that each take-in firm kept a scout at the end of St. Thomas's Street to find out whether such a case were approaching upon the stretcher. That this approach was slow will be appreciated when it is realised that our present highly efficient fleet of motor ambulances dates only from the war. Before that horse ambulances were in existence, but were limited to the removal of infectious cases. For the accidents in the streets there was only a stretcher on a couple of wheels pushed along by two policemen, who, incidentally, had to be absent from their beats until they had taken the case to the hospital and brought back the stretcher. The writer has more than once on his way to Guy's seen a couple of Bobbies proceeding with a stretcher to some accident in the City and recognised the same two policemen arriving at St. Thomas's Street after he had put in a lecture. The most famous story on the subject tells of a man knocked down at Hyde Park Corner. The policeman in charge brought him to Guy's, passing the Westminster and St.

Thomas's Hospitals on the way. On arrival the patient was dead. When asked at the inquest why he did not take the patient to St. George's the policeman is reputed to have said, " I ain't got nuffink agin St. George's, but at Guy's there's beer." No reference can be adduced to support the accuracy of this story. We give it, on tradition, for what it is worth. The custom passed on the transfer of the " Front " to the back of the Hospital, or during the war. We know not which. The friendship with St. Thomas's remains, it is being knit closer through our Deans, men of like figures with ourselves.

We know that there will be those who say we have been unnecessarily discursive in our review. We make no apology for this. Every diversion has been brought to our mind by something in Mr. Parsons' book. It is evidence that this is no mere series of extracts from the minutes of the Court of St. Thomas's Hospital. A hundred other ideas have been brought to our mind by this long record of a great institution. We would advise others to procure the book, to go through it, and to see how many further points and problems it will bring up before them.

REFERENCES

1. *Vide Guy's Hospital Gazette*, Vol. XLVI, p. 330.
2. Fox's *Book of Martyrs*. Ninth Book, *sub-fin.*
3. *History of England*. Vol. V, p. 200. (He quotes Stow in support of his statement.)
4. *Works of Bishop Ridley*. P. 100, Parker Society, 1841.
5. *Works*. P. 283.
6. *Ibid*. P. 492.
7. Burnet. *Hist. Reformation*. Pt. II, Bk. V, p. 209. 4th edition.
8. Norman Moore. *Hist. of St. Bartholomew's*.
9. Burnet. *Ibid*. Vol. II.
10. *History of England*. Vol. V, p. 58.
11. *Dedication to the Traveller*.
12. Boswell. I, p 161. Birkbeck Hill's Edition.
13. Savage. *Lives of the Poets*. 200. Birkbeck Hill's Edition
14. *Ibid* 221
15. *Ibid*. 272

T. B. L.

16-12-36

Dr. Allport, than whom, all would agree, there is no more gentle or genial man, was taking part while at the Hospital in a boxing contest in the Borough. The manager announced in ringing tones that the next fight would be between Dr. Allport, of Guy's Hospital, and the Slosher, of Bermondsey. As the contestants entered the ring the crowd cried, " Which is the Slosher ? "

An irascible gentleman recently rang up his son at the Hospital, and, having failed to get through to him, delivered a long and complicated message to the College porter. At the end of it, " This is Admiral So-and-so speaking," he roared, " and to whom is it that I am speaking ? " And the voice of the porter answered faintly, " This is Nelson, sir."

The following stories have been sent to us about Mr. Jacobson, that " famous and beloved surgeon " :—

Jacobson, when lecturer on Anatomy, was accustomed to sleep overnight at the Bridge House Hotel on some days in the week, and to devote several hours up to midnight in drawing in the theatre diagrams with coloured chalks for the morrow's nine o'clock lecture. How many men would take that trouble and how many students appreciate the results ?

Upon one occasion Jacobson spoke somewhat harshly to a student when going the round of his ward, and at its conclusion he apologised, and invited the student to spend the week-end with him at his country house at Ewhurst. Upon meeting his guest at the railway station he insisted on carrying the visitor's bag to the house, two or three miles distant, and this kindly and embarrassing service was repeated upon the departure the following Monday morning.

On the occasion of Dupuytren visiting the Hospital, he was roused to such a pitch of enthusiasm that, on leaving, he kissed Sir Astley Cooper on both cheeks. It is recorded that the manner in which Sir Astley submitted to this ordeal caused no small amusement to his students.

The following conversation recently took place in the Eye Ward.

Patient (with advanced arteriosclerosis and somewhat disorientated).—" May I ask, sir, are you Dr. Symonds ? "

Dr. Symonds.—" Yes."

Patient.—"De-e-ar me, how you *have* changed."

Dr. Symonds.—" When did you see me last ? "

Patient.—" August 13th, 1934."

Dr. Symonds.—" I don't think I've changed much since then."

Patient.—" Changed ? W..y, my dear sir, it's *tragic.*"

Correspondence

Memories of a Past Editor

(From Sir Francis Fremantle, Chairman, Parliamentary Medical Committee.)

To the Editor of the GAZETTE

SIR,—I wish I could make a worthy contribution to your Jubilee Number, but events in Parliament, up to this very afternoon, have been distracting; and forty years is a long time through which to fish out the memories of the past. It was in 1897 that Spriggs, who was on the Committee of the *Gazette*, suggested to me that I should succeed Fagge as Editor. The *Gazette* had been put on a business basis by Mr. C. H. Wells, at that time Clerk to the Medical School, who with shrewd common sense recognised that the Committee would have a better hold on the Editor if they paid him £50 a year, and a better advertisement revenue if they fixed the *Gazette* to appear punctually every other Saturday, when an Editor would be loath to postpone publication over the week-end. As I was in no hurry to get through my education, I accepted the post and enjoyed it for eighteen months till I became Dr. Newton Pitts's H.P. in 1899. Mr. Jacobson, a kind but critical friend to whom, as Senior Assistant Surgeon, I was dressing, advised me against it in his characteristic and most emphatic terms. It was not the last time that we disagreed.

The experience proved of great value. I can never understand why every boy and every girl are not taught to express themselves audibly in voice and legibly on paper, clearly and precisely, courteously but forcibly. Owing to an unreasonable mock modesty or moral photophobia they lose half their influence and waste the assets of their experience, which could be distributed with such value to the world. This, anyhow in the publicity of the political world, is moral suicide, and for the purpose of a political career, then already my aim, the collection and selection of matter for publication, the comments—with their subsequent autopsies in the smoking-room—the proof-reading against time, and the adamant needs of the printer were an admirable training; and specifically they were of first value to my sixteen years as a County Medical Officer of Health in the making of reports, especially annual reports, replete with tables, and seeing them through the press to Committee and Council, to be taken, with any misprints, as the basis of action.

A great appeal was being made for Guy's under Mr. Cosmo Bonsor in 1897, the first in its history except for Mr. Lushington's more private appeal in 1886. Mr. Fagge, my predecessor, brought out a special number of the *Gazette*, on an unprecedented scale, including a reproduction of the Bartolozzi print of Thomas Guy's Memorial in Guy's Chapel. But the proud distinction fell to me of sitting as Editor, with *Times* reporters and all that, at the Appeal banquet in South Kensington in a marquee, immediately in front of the then Prince of Wales, afterwards King Edward VII, who as President of the Hospital gave the Appeal a splendid send-off.

Of the innovations introduced in the *Gazette* between 1897 and 1899, I can remember chiefly a development of its matter for the benefit of nursing and of dental readers, as essential parts of our community, and a diligent cultivation of contributions from old Guy's adventurers overseas.

The success of the *Gazette* stimulated the production of the *Guyoscope*, deliberately started by certain of my friends as a humorous rival, if not a parasite. Fortescue-Brickdale's skits were brilliant creations of his imaginative humour, worthy of his exemplar, who afterwards became known to the world as Sir Owen Seaman, Editor of *Punch*. Stanley Cock's caricatures and sketches were worthy of the letterpress and justified Laurie Shaw, who, as Dean, reprimanding him for unparalleled neglect of his studies, suggested that he would be better fitted for the profession of a pavement artist.

As Editor I never had any hesitation in writing to the greatest in the land for contributions. Mr. Gladstone, who had opened the College—the first of its kind in London—sent me a characteristic post-card in his own handwriting. W. E. Henley sent a stanza from his sick-bed. Robert Bridges sent a reprint of a play in classical style, containing some "stage surgery," as he called it. When the first Obstetric Ward was to be opened at the top of Hunt's House, I wrote to G. F. Watts to suggest his collecting a band of young artists to paint the walls, as he, Morris and Rossetti had painted the Library of the Oxford Union. He was so interested in the project that he invited me to tea one Sunday, took me round to the carriage-stable and dragged out for my admiration the plaster cast of what is now the bronze statue of "Physical Energy" in Kensington Gardens, and, regretting that he was too old to undertake a task into which, had he been younger, he would have thrown himself with enthusiasm, he introduced me there and then to Holman Hunt.

Now Holman Hunt had already tried to introduce Art to the Prisons, without much effect, and he entered into the prospect of decorating an Obstetric Ward with the utmost delight. I brought him down to Guy's to lunch in the Superintendent's House with Sir Cooper Perry—then and always a good friend to progressive ideas and sound culture—and Holman Hunt further enlisted the interest of Professor Gerald Moira, who went into the project in detail. The problem was, of course, to devise a medium which should take the place of framed texts and prints, should enliven the wards, and yet be capable of being scrubbed and disinfected. Gerald Moira eventually produced a scheme for a design in stained glass. But the design had then to be of a formal and conventional kind, which would have had no meaning for the patients, and it was most costly.

However, as Editor of the *Guy's Hospital Gazette*, I set to work to raise the money required for the project, and got in touch with the managing director of Mellin's Food, suggesting that £2,000 so spent on the Obstetric Ward, with decorations by artists of world-wide fame, would be money well spent by the firm who profited by the birth-rate. As my share in the bargain, I arranged with Sir F. Gowland Hopkins, P.R.S.—then our Biochemist at Guy's—for a detailed report on the nutritive value of Mellin's Food.

The Director of Mellin's Food was delighted with the report and ordered 2,000 copies of the *Gazette* in which it appeared. But no more was heard of a donation for decorating the ward in Guy's, and when I wrote later, reminding the manager of our mutual intentions, he replied that Guy's must have profited enough by his purchase of 2,000 copies of the *Gazette*. And then I became House Physician, and wanted to take the Membership first, and so passed the *Gazette* on to Freddie Walker and Paddy Eason. No more was heard—in the *Gazette*—of Mellin's Food or of the scheme for pictorial decoration of the Obstetric Ward.

Best of luck, Mr. Editor, to the *Gazette* under your enlightened editorship and to the Jubilee Number, which I hope to have time to devour. May you and other Guy's men of appropriate intelligence soon join or succeed Alfred Salter and myself in the Parliamentary Medical Committee and the House of Commons.

Yours, etc.,

FRANCIS FREMANTLE.

Royal Medical Benevolent Fund

To the Editor of the GAZETTE

SIR,—I have hesitated this year in making my usual appeal to your readers for the Christmas Gift fund of the Royal Medical Benevolent Fund, because we have had a generous response from many members of the medical profession to our Centenary Appeal for new subscribers and for donations. My hesitation was, however, dispelled by the following letter from one of our annuitants, a spinster lady of 75, who has been lame since she was 15. When submitting the last return of her very small income, she wrote :—

> "The kind Christmas Gift of £1 10s. must be added to my income. It comes, a regular gift, but I know you might not be able to send it to me. Every Christmas I am just a little expecting and very much hoping to receive it."

This letter made me feel that our annual Christmas Gift Fund must not suffer. We have between 700 and 800 names on our books, and, as in previous years, we hope to send each a Christmas Gift of 30*s*.

I ask for very generous help from all.

Yours, etc.,

THOS. BARLOW,
President.

11, Chandos Street,
Cavendish Square, W.1.

Guy's Hospital Staff of 1763

To the Editor of the GAZETTE

SIR,—In my possession is a *Rider's British Merlin* of 1763 (a sort of *Whitaker's Almanack*). In it is mentioned Guy's Hospital Staff of that year, which is interesting to me, and I wonder if it may be of interest to others.

One wonders from what social grade the "surgery man" and the "keepers of lunatics" were recruited, and also one is impressed by the fact that no single name on the medical or surgical staff is linked up with any lasting contribution to medical knowledge, as far as I know.

I send it you to use it or not as you think fit.

Yours, etc.,

ASTLEY V. CLARKE.

10, University Road,
Leicester.

Rider's British Merlin, 1763, p. 239 :—

Guy's Hospital.— .

Founded by Thom. Guy, Esq., in 1722.

President.—Lewis Way, Esq.
Treasurer.—Benjamin Avery, LL.D.

Physicians (3).—Dr. Nich. Munckley, F.R.S.
Dr. Henry Hinckley.
Dr. Charles Wollaston.
Surgeons (3).—Mr. John Belchier, F.R.S.
Mr. Joseph Warner, F.R.S.
Mr. Lewis Way.
Chaplain.—Rev. Mr. Rob. Poole Finch.
Clerk.—Mr. Nathaniel Neal.
Apothecary.—Mr. Benjamin Sted.
Steward.—Mr. John Catlin.
Matron.—Sarah Wallis.
Accomptant.—Mr. William Robinson.
Surgery-Man.—John Hill.
Keeper of Lunatic Men.—Stephen Swain.
Keeper of Lunatic Women.—Mary Fitzgerald.

Occupational Disease

To the Editor of the GAZETTE

SIR,—I welcome the fact that at last a member of the Honorary Staff has delivered a clinical lecture on an occupational disease (I refer to Dr. Boland's lecture on Silicosis). I feel that far too little attention is paid to this aspect of medicine in our medical schools. A few lectures of this type, if they did nothing else, would illustrate the importance of considering the patient's occupational *history*, as opposed to merely recording a bald and often inaccurate statement of his occupation. I submit that this is a point all ward clerks should learn early in their career, not only as a matter of training for them, but also in order that hospital case records may be more complete, and may be of greater use when referred to by anyone investigating the relation between any particular disease and a specific occupation. I am confident that such investigations will be much more common in the future than they have been in the past.

Yours, etc.,
RONALD E. LANE.

31, Moorland Road,
Didsbury,
Manchester.

(P.S.—Owing, no doubt, to an oversight, " lead shot " is mentioned as having replaced the use of sand in sand-blasting. This, of course, should read " steel shot."—R. E. L.)

Hospital Information, etc.

Pass List

UNIVERSITY OF LONDON.
THIRD (M.B., B.S.) EXAMINATION FOR MEDICAL DEGREES.
November, 1936

Honours.

*J. E. Spalding.

* Distinguished in Medicine.

Pass.

H. V. Brown
G. D. Channell
C. S. Darke
D. A. Davies
W. H. Hamilton
J. A. J. Hammond
J. H. Mayer
J. A. W. Miller
G. N. Wright

GROUP I.

J. A. G. Carmichael.

GROUP II.

T. H. Hills.

Papers by Guy's Men

J. F. Pilbeam. Dental treatment of school children. *Brit. Dent. Jour.*, 1936, lxi, 637.

W. A. Mill. Ear-ache. *Post.Grad. Med. Jour.*, 1936, xii, 464.

Robert Cutler. Classification of cases from the standpoint of practical treatment. *Dental Record*, 1936, lvi, 745.

Martin A. Rushton. Some dilated composite odontomes. *Dental Record*, 1936, lvi, 766.

R. D. Gillespie. Amnesia, Component functions in remembering. *Brit. Med. Jour.*, 1936, ii, 1179.

N. S. Plummer. Blood transfusion, Report of six fatalities. *Brit. Med. Jour.*, 1936, ii, 1186.

W. C. D. Maile. Observations on the intubation treatment of peptic ulcers. *B.M.J.*, June 13th, 1935.

W. C. D. Maile and K. J. L. Scott. Digestibility of common foodstuffs as determined by radiography. *Lancet*, Jan. 5th, 1935.

—— Further observations on the intubation treatment of peptic ulcers. *Lancet*, June 29th, 1935.

Marriages

JONES—DAVIES.—On September 26th, 1936, at Llanischen Parish Church, Cardiff, Thomas Evan Jones, of Balmain, Aberayron, to Doris Amelia Davies, of Killara, Lake Road, East Cardiff.

GRAY—GANNAWAY.—On December 8th, 1936, at St. James's Church, Spanish Place, Edward Emile Delisle Gray, M.D., M.R.C.S., son of the late Dr. and Mrs. St. George Gray, to Lilian Maud, daughter of Charles Henry Gannaway and the late Mrs. Gannaway.

Death

McCREA.—On November 5th, 1936, at Exmouth, Devon, Elizabeth Antoinette (née Watermeyer), widow of Surgeon Major John Frederick McCrea, V.C., Cape Mounted Infantry. Aged 68.

EDS. { M.A.P. / A.G.W.H.